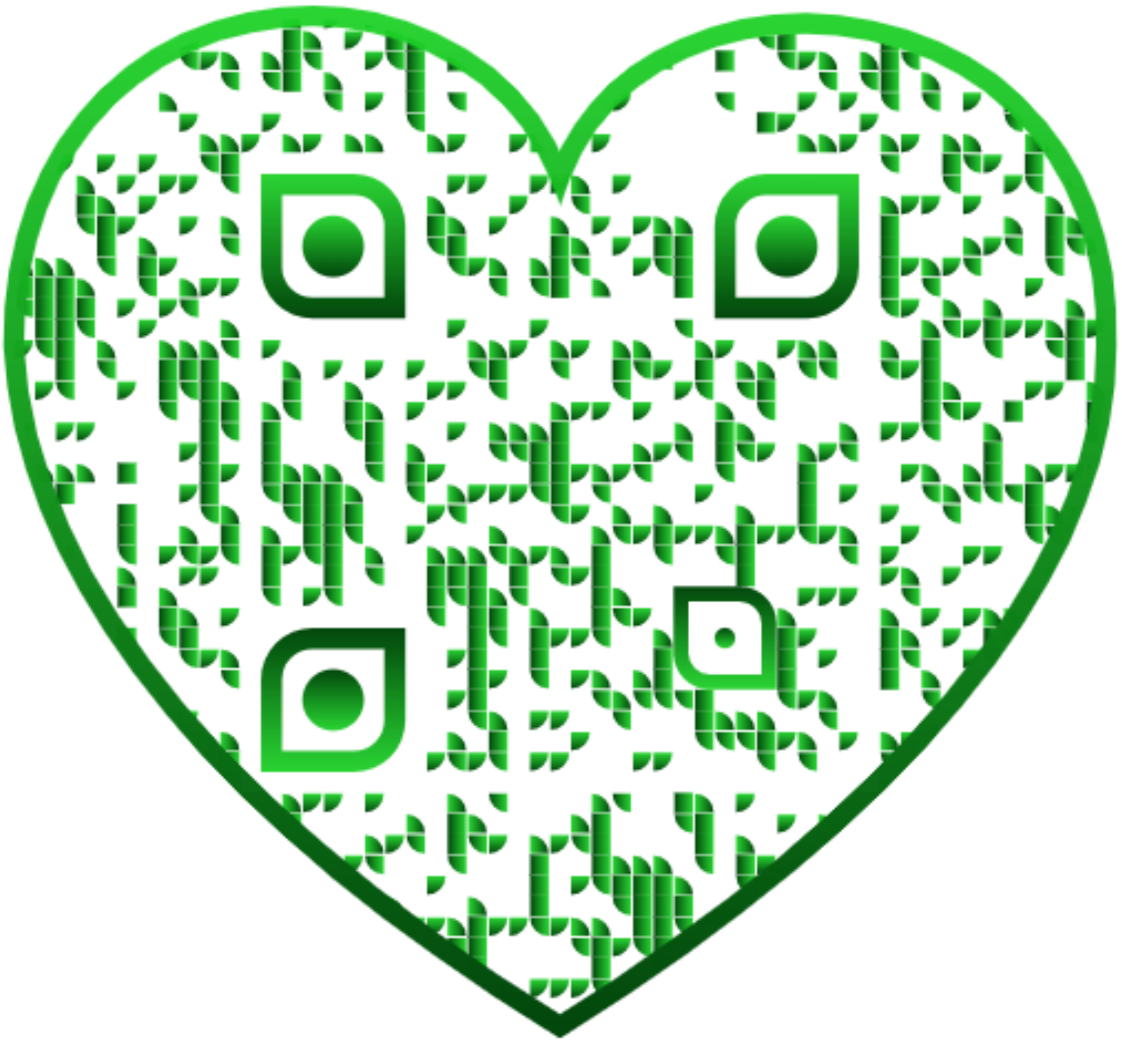
AARON E. MCCOLLUM

THE TRANSHUMANISM PANDEMIC:

SUB-HUMANITY'S MESSIAH; HUMANITY'S ANNIHILATION

EDITING AND ARTWORK BY TAMARA NATIVIDAD



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AARON E. MCCOLLUM

PISCEANESQUE PUBLISHING

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FOREWORD

It is no secret that although an entire half planet away in distance, on a completely isolated continent, I always jump at the chance to work with the author of this book. It does not matter the project, the time required of me, or the little I feel I have to offer.

This is a man who changed my life the moment he entered it, awakening something within me that I have still not been able to label, but that I continue to be grateful for. Perhaps it was simply a new awareness, or the re-calibration of one that was previously comfortable and unquestioning, deliberately hidden, and *definitely* far too ignorant.

In any case, I had been shaken and finally unshackled, and now I have a different vision: one which continues to see further than even the strongest optical device. Walls have become suddenly invisible and global mainstream lies clearly apparent: reality is something very different to what I once supposed it would be. And it is all thanks to this man and his many missions that I thirst for more knowledge and more truth. *With any luck, you will be compelled to join us, by the time you complete this book.*

The author is a being extremely wise beyond his years, and deeply more experienced at the journey of life than most people might realise. He is a man of high standards and even higher expectations, and, although I have seen it wavering at times, his faith in humanity as a species has a definite presence all of its own that demands listening to.

He is a friend that I would turn to immediately if I ever needed assurance, help, or even just a tremendous laugh, and I often find myself debating him on my suggestion that just one clone sent my way surely could do no harm! Of course, I know that a cloned version would never substitute the original as there

simply exists no other like him on this globe, and, admittedly, I find that uniquely comforting.

With a memory that stores and files data like the very supercomputer this book will come to discuss, the archives within this man's mind (of which I continue to demand a back-up drive!) are limitless and all expansive. To me, he is a genuine *super* human in every organic sense who achieves success above and beyond the goals he aims to meet, including the writing of this very vital book, in which I have had the great honor to assist.

In editing what began as something under 100 pages, and being trusted fully to sometimes re-express, better explain, and/or expand upon his original body of text, I hope to have also achieved a successful outcome by taking, in the best way I know how, his originally drafted words, and placing them in exactly the order in which he might have first intended them.

I am very proud to be associated with the experience that is *Mr Aaron E. McCollum*, and this book, and support completely the views he expresses in the chapters within. Take, for example, *Julian Huxley*, president of the British Eugenics Society, who redefined eugenics using the term 'Transhumanism' as relating to humanity steering the direction of its own evolution. In a similar fashion, Aaron will redefine quite clearly how and why Transhumanism is designed and steered to do the opposite.

In my view, it can be described using a balanced scale of destruction, with the genocide of humanity (extinction) at one end of the spectrum, and the technological advancement of the human species into a *new* one (again, extinction), at the other.

Transhumanism, while a current and increasingly popular cultural movement (a science *fantasy*), has an outlook of moving humanity away from its naturally slow evolutionary process to a deliberately implemented era of Posthumanism; that is, the upgrade of the genetic human form to a deliberately evolved 'Human 2.0' *other* state, as will be further expanded

upon in the pages that follow. You might hear it repeated that Transhumanism is not the end-game, that it is only a transitioning phase with the ultimate goal being that of life extension, through any *and all means* possible.

Selectively cross blending genes from any species or subspecies of life, including plant and animal, with human genes and technology of any size or magnitude will produce, ethics aside, the transhuman, and finally, the posthuman. The posthuman - on a virtually unlimited scale - will be radically different in physical appearance, intelligence, skill, and, possibly even bypassing the need for two sexes, both male and female could be merged into one. Perhaps the posthuman, on a graded basis of servitude, might even be controllable: bred and designed for a specific project, purpose, or person.

The question of what might happen to the organic human soul is never considered by Transhumanists. In a future proposal its portability is discussed - but at what spiritual cost? More accurately, it is the expendability of the body vehicle that is their primary concern. How to avoid such an alarming prospect before their own clock expires is the push that groups Transhumanists and Futurists into a global race against time and consequence. It is such a shame that the best minds on the planet are the least mindful of its inhabitants.

We might be biodegradable, but that shouldn't mean that our vision must decay.

Professor Nick Bostrom, founder of the World Transhumanist Association, has been noted as saying that the WTA consider death a 'big problem', that human survival is an *existential risk* requiring a need for convergence with technologies, and also that 'life is not usually as "wonderful" as it could be.'

These *ludicrous* statements suggest that Bostrom, who is featured in a section of his own in this book, is attempting to justify the need for a transition to Posthumanism by insisting that humanity should head into the arms of a Technological

Singularity: right into the eye of the storm, to the detriment of the organic human race.

Do you agree with his agenda? Or, like us, and many others with an opposing sentiment, do you stand strongly against it?

Tamara Natividad

PROLOGUE

TRANSHUMANISM AND THE WAR MACHINE

When we discuss Transhumanism, we are not referencing a topic that is as simple as its definition describes; a basic statement that explains it as, *"an international, intellectual, and cultural movement that affirms the possibility and desirability of fundamentally transforming the human condition by developing and making widely available technologies to eliminate aging and to greatly enhance human intellectual, physical, and psychological capacities. [...]"* [1]

In fact, Transhumanism, or H+ for short, is merely a part of a greater construct that is so incredibly complicated by its mass that most have no idea how it can be consolidated into one name, one title, or one agenda. There is much more to Transhumanism because it is simply the 'journey' to something else; a progressive transformation, if you will.

Transhumanism is not the goal, but the *process* to synthetically evolve the human race more rapidly than organic evolution allows. It is a transformation that carries a wide variation of ideologies, philosophies, and ethics among the members and leaders of this global movement. The purpose of it is to eventually reach the goal they are aspiring for, which is a posthuman civilization, also referred to as *Human 2.0*[2]. It is not just humanity that is being manipulated for this forced transition, but the entire planet, in order to have it become an *Earth 2.0*.

Yet, it is even more complicated than just 'Posthumanism',

[1] Wikipedia The Free Encyclopedia, 'Transhumanism', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Transhumanism (accessed 13 Jan. 2013)

[2] Ray Kurzweil, 'Human Body Version 2.0', Kurzweil Accelerating Intelligence, http://www.kurzweilai.net/human-body-version-20 (accessed 1 Mar. 2013)

because even that has been segmented into different goals and agendas depending on technologies and personal preferences. If you look at the 2045 Initiative[1], it calls for humans to be 'alive' within an Avatar that is constructed out of a holographic type of nanotechnology where the human soul (mind) is uploaded into a cybernetic brain network, allowing the person to have such abilities like morphing into any physical shape.

On the opposing side, if we look towards PRIMO Posthumanism[2], like what *Natasha Vita-More, Ph.D.* discusses, then it is a shopping list of body and mental augmentations that the individual can decide upon, allowing a mixture of flesh and machine. But what about religion? Do any organized religions have an interest in such a thing?

Absolutely.

The Mormon Church has a vested interest in Transhumanism, and have even authorized the creation of the Mormon Transhumanist Association[3], known by the church as 'The Association'. They have even given their movement a name that mixes their religious beliefs with those directly out of the Transhumanism Declaration[4], and they call it 'Transfigurism'.

We can go even further into this and look at another angle known as *The Singularity*[5], or, *The Technological Singularity*, of which we have *Ray Kurzweil* to thank for bringing into the public's eye. In short, it means 'the theoretical emergence of superintelligence through technological means', however, it is

[1] 2045 Social Strategic Initiative, http://2045.com/ (accessed 31 Jul. 2012)

[2] Natasha Vita-More, Ph.D., 'New Human Genre Transhuman', Natasha Vita-More, http://www.natasha.cc/primo.htm (accessed 8 Jul. 2013)

[3] Mormon Transhumanist Association, http://transfigurism.org/ (accessed 1 Jul. 2013)

[4] Doug Baily, Anders Sandberg, Gustavo Alves, Max More, Holger Wagner, Natasha Vita-More, et al, 'Transhumanist Declaration', Humanity +, http://humanityplus.org/philosophy/transhumanist-declaration/ (accessed 2 Aug. 2012)

[5] Wikipedia The Free Encyclopedia, 'Technological singularity', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Technological_singularity (accessed 10 Oct. 2011)

much more complicated than that. When you consider that Transhumanism, Posthumanism, The Singularity, techno-religious movements, and more, ALL have the same basic principles and technologies involved - and more or less the same final goal - it is easier to refer to it all under one name for simpler reference. I use the term, 'The Construct' or the 'TPS Construct'.

The overall general goal for The Construct is to synthetically evolve the human race into a 'flesh-machine' type of Human 2.0, but there is actually much more to it that is grossly missed. When it comes to the current phase of The Construct we are in, we are positioned towards the end of the beginning phase of the Transhumanism process. This is the stage where social engineering and a heightened level of techno-gadget propaganda is rampant in civilization, one which first focused on the children, and moved slowly towards the elderly. It is a 'soft' integration of getting people not only used to technology, but eventually dependent upon it.

During this phase of the process, what we have been seeing - but not loudly enough - is a battle waging that is almost entirely ignored by the mainstream media. This is a battle of The Construct, with organic humans on one side, and Transhumanists on the other. As of right now, it is a battle where the weapons are data, philosophy, ethics and morals, and, trends and research. So far, those in the middle of this battle, like myself - and perhaps yourself also - are out numbered about 1000 to 1, and if we include all the techno-zombies who are aimlessly riding the H+ wave into a cybernetic oblivion, it is a far higher number.

Regardless, we stand our ground, because we are firmly rooted to our 'human' beliefs, and we wish to remain organic in all aspects from food, to learning, to our own evolution in mind, body and spirit. The Transhumanists wish for not only themselves to become a Human-Machine Integrated 2.0 version of their prior self, but they feel that everyone on the planet must embrace this even if it is through some means of force. That is

not a lie, nor an exaggeration, and all you need to do is read through some of the material written by the leaders of The Construct and it will become painfully clear.

So, for now, what we see globally, is this slow integration through technologies like *virtual reality*, *nanotechnology*, *biotechnology*, *cybernetics*, *RFID*, and more. The mixing compound for all of this that helps emulsify it into the minds of the masses is, of course, *social engineering*, which is a science in itself. The battle ground is the debate and information war, but it is also the overwhelming saturation of technologies. Although some have the potential of doing good, most are breaking us down physically, mentally, spiritually, and even sexually. Just like a military boot camp, where the military attempt to shape you into the form they have predetermined, so too, is the method of The Construct. Just look at the people around you the next time you are in public.

There is another battlefield being drawn out as we speak, and it has been in the works for a long time: consider it Phase 2 of the Transhumanism process of The Construct. This, finally, is the reason I had to stop my research for the moment and write.

If, hypothetically, about 1 billion people become resistant to The Construct's Transhumanism process, how might *they* integrate and 'reprogram' so many people? Well, by force, is one answer, and it is the answer I give when asked such a question. But, by force, how? By using the technologies categorized and embraced by The Construct. Such technologies include *machine-learning*, *brain-computer interfacing*, *artificial intelligence*, *telepresence*, *microtechnology*, *autonomy*, *cybernetics*, *robotics*, and a host of others.

Truth is stranger than fiction, because some of the largest institutes, corporations and military agencies *have been*, and right now *are* developing war machines that are so advanced, so powerful, and so durable, that they can easily handle flesh and blood. Some are integrated with a human operator, but more and more are being designed to be completely unmanned, and

are being programmed to *learn and adapt*. All one needs to do is look deep into the data vaults of BAE Systems[1], DARPA[2], Boston Dynamics[3], and also Carnegie Mellon University Robotics Institute's National Robotics Engineering Center[4]. Robotic machines like the *EATR*, *PerceptOR*, *Black Knight*, *Crusher*, *Spinner* and *Dragon Runner*, to name a few, are either in development, or already in use by the military.

How long do you think it will be before all military and militarized police forces will have this? The next phase is coming, and it is coming fast. Documentation does exist showing that the U.S. Military alone has spent hundreds of millions of dollars buying already built autonomous and unmanned robotic ground vehicles, maritime submersibles, and aerials[5]. I have seen videos of unmanned ground vehicles that are *100% autonomous* doing some very interesting things in the U.S. Marine Corps proving grounds in Yuma, Arizona. I have read hundreds of pages of data showing autonomous machinery where it clearly states the machinery is for overseas or domestic use, and data explaining how *their robotics* can be utilized - instead of manpower - for basic work like harvesting crops, or moving pallets full of merchandise. I have seen documentation on autonomous military vehicles the size of a tank down to the size of a softball and ALL were capable of being weaponized or rigged for surveillance.

One must wonder how the elite, and the leaders and supporters of The Construct get so many people on board with their

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[1] BAE Systems plc, 'Products-Defense', BAE Systems, http://www.baesystems.com/page/search?sparam=&_afrLoop=773029387310000 (accessed 14 Jun. 2011)

[2] DARPA, 'Overview-Program', DARPA Robotics Challenge, http://www.theroboticschallenge.org/aboutprogram.aspx (accessed 17 Jul. 2013)

[3] Boston Dynamics, http://www.bostondynamics.com/ (accessed 18 Aug. 2012)

[4] Carnegie Mellon Institute, National Robotics Engineering Center, http://www.nrec.ri.cmu.edu/ (accessed 23 Jun. 2013)

[5] iRobot Corporation, 'Press Release Archive', iRobot, http://www.irobot.com/en/us/Company/Press_Center/Press_Releases/Archive.aspx (accessed 19 Jun. 2013)

agenda, and yet, it truly occurs right from the depths of our very hip pockets. People are being mind-controlled in so many ways; from 'Smart' technology, to the food and liquid they consume. The social engineering plot of the mass media, government propagandists, and especially Hollywood, has completely distracted most like a magician using 'slight-of-hands' in their tricks. They are unleashing their army of robots, and *that* is NOT science fiction. The proof is contained within this book, and if you choose to bypass it, then I dare suggest you should think again.

The economy, war, engineered false flag attacks, he-said-she-said gossip, race conflicts, the police state, and everything else is - by design - a deliberate attempt to break the people down and give them nowhere to run. The controllers then sit and wait for those who come crawling to their feet, begging for salvation, and then seize the opportunity to spring the trap. The Construct plans to have the answer and it will be designed to where you either become part of the matrix, or you are left in exile.

I do not mean to sound pessimistic, but I believe from within that a war is coming, and that war will be between the humans and transhumans. I do believe that if enough of us rise up then we will be the victors. I believe the power of nature supersedes the power of technology, and that we need numbers on our side with the organic spirit to fight this global pandemic before it reaches a fizzling climax of uncontrollability.

Following, is a piece of writing that gives a profound look into what some might believe is an inevitable future. While I agree with the author regarding the war, I strongly believe that the actual and final outcome will be the reverse.

Rise of the Transhumans[1]
by Sean McKnight

The last battle for equal rights won't be for racial equality;
It won't be for gender equality;
Not for sexual or gender orientation;
It will be a battle between two species:
Humans and Transhumans.

Unlike the other battles for equality, this one will be more than figurative;
It will take a great expense of blood
And in all likelihood result in the eventual extinction of the human race.

That's how dominant species function,
As one rises the other must logically fall
Transhumans will be smarter, stronger, and more capable than humans
Humans will eventually stop being the masters of their own planet
Transhumans will take the jobs of the elites, and outperform their human counterparts
Humans will respond, violently as usual
But they will lose.

What may start as a quest for equality for by both
Will end with the extinction of one.

[1] Sean McKnight, 'Rise of the Transhumans', DeviantART, http://ynot1989.deviantart.com/art/Rise-of-the-Transhumans-216017230 (accessed 21 Jun. 2013)

INTRODUCTION

The earliest literary reference to Transhumanism can be found in the work of Italian poet, *Dante Alighieri*[1] *(1265 - 1321)*. In his masterpiece, *Paradiso*[2] of the *Divina Commedia*[3], Dante used the verb, 'transhumanare', in reference to 'becoming transhumanized', to describe what happens to humans through a Beatific Vision; something he explains as the direct self-communication between God and man, and the euphoric feeling of joy, enlightenment, and intellectual salvation that results.

Some speculate that Dante's expression was the birth of the concept of modern Transhumanism, also known as H+, but could it have been spawned from more ancient times? Could this theological expression concerning the artificial evolution of the human race have been spoken in the closed meeting circles of past Seers, Sages and Shamans? Or was it, perhaps, simply only born from the delirious mind of just one man, who in modern times, has been labelled the 'Father of Transhumanism'? These questions, and more, will be addressed, debated, and answered in the chapters following.

The reader, by the end, will no doubt be fitfully adjusting into a new position in reality; viewing, rather, a previous mental nuts-and-bolts mosaic instead as a three dimensional multi-faceted matrix-like hologram. To attempt to detail the depth in which Transhumanism has become embedded in our lives, one must envision it threading itself throughout history, like the underbelly of something poisonous, breeding mindlessly in preparation for a venomous attack on all of our human freedoms

[1] Jalic, Inc., 'Dante Alighieri', The Literature Network, http://www.online-literature.com/dante/ (accessed 10 Jul. 2013)

[2] Dante Alighieri, 'Paradiso', The Literature Network, Jalic, Inc., http://www.online-literature.com/dante/paradiso/ (accessed 10 Jul. 2013)

[3] Dante Alighieri, 'Divina Commedia', Dante Alighieri on the Web, http://www.greatdante.net/commedia.html (accessed 10 Jul. 2013)

to come. The underworld that this Transhumanism multiplex construct resides in, needs a serious defragging before our opportunity expires.

But first, we must consider its inception, and then we shall touch briefly on each branch and division of this abhorrent machine that is swiftly engulfing our planet.

A BRIEF HISTORY

Before people like *Ray Kurzweil, Leonardo Da Vinci*, and *Julian Huxley*, there were existing ideologies of artificially creating an accelerated evolution of humankind. One only has to explore historical texts to discover these clues in the written and oral accounts passed between generations. Knowledge and philosophies of those in ancient times were recorded and recalled by people who were known as Mystics, Philosophers, and even Witch Doctors. These were men and women who were mindfully, consciously, seeking the ultimate goal of immortality by any means necessary, searching for ways to extend life and make it easier. This is, in itself, not a bad thing, but you will find as you continue to read on, that sometimes good ideas and motives become twisted and used for evil agendas.

The early thinkers would often combine and ingest a concoction of herbs and chemicals in order to create an immortality elixir. One excellent example is that of *Qin Shi Huang*[1], the first Emperor of China, who ruled from 246 B.C. to 210 B.C. As Qin Shi entered middle age he became overly obsessed with immortality and ordered his court doctors and alchemists to bring him the 'elixir of life'[2]. His men searched the entire empire, and far beyond, searching for the elixir of which Qin Shi was convinced did exist. Eventually, to satiate the Emperor, the alchemists began administering various 'elixirs of life', with most containing what was known as 'quicksilver' - the liquid metal, mercury. This, of course, had the opposite effect on Qin Shi, and the mercury slowly began poisoning him.

[1] Kallie Szczepanski, 'Qin Shi Huang, First Emperor of China', About.com Asian History, http://asianhistory.about.com/od/profilesofasianleaders/p/qinshihungbio.htm (accessed 2 Jun. 2013)

[2] Wikipedia The Free Encyclopedia, 'Elixir of Life', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Elixir_of_life (accessed 2 Jun. 2013)

On the other side of the spectrum, the ancient beginnings of robotics, and even artificial intelligence, began in a more archaic fashion. Some of the tales and accounts found in ancient texts have been proven factual, while others are said to be of myth and legend. However, in recent times, such devices like the *Antikythera Mechanism*[1] have shown that the quest for automata has been long standing. This technological artifact was discovered in approx. 1900 - 1901, in an underwater shipwreck of the same name.

The Antikythera machine containing complex gears dates back to the 1st century B.C. and has been concluded to be an analog computer[2]. It appears to have been constructed upon theories of astronomy and mathematics, seems to have required little maintenance, and at best estimate, was utilized in some way for the purposes of sea-going navigation. So, here we find almost two thousand years ago, the beginnings of computerization, or automata, in our human world. This is an early example of an invention with wonderful potential, but, as I will continue to express, those with other agendas take such ideas and twist them to extremes for corruptive purposes.

It is possible to go back even further in time where myth and legend seem to meld with factual events in their own alchemical brew throughout the world from China to Greece. Circa 3500 B.C.[3] we find ancient Greek myths of *Hephaestus*[4] and *Pygmalion*[5] where the ideas of intelligent mechanisms were incorporated into their stories. Circa 2500 B.C. in ancient Egypt

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[1] Professor Mike Edmunds, '*Antikythera Mechanism'*, University of Cardiff, http://www.antikythera-mechanism.gr/ (accessed 13 May 2013)

[2] The Antikythera Mechanism, http://www.antikythera-mechanism.com/

[3] The History of Computing Project, 'Timeline of Robotics 1 of 2', http://www.thocp.net/reference/robotics/robotics.html (accessed 13 May 2013)

[4] Evangelia Hatzitsinidou, 'Hephaestus and the Creation of the Robots – A Creation Story', Gods & Goddesses of Ancient Greece, http://www.greek-gods.info/greek-gods/hephaestus/myths/hephaestus-robots/ (accessed 12 May 2013)

[5] Wikipedia The Free Encyclopedia, 'Pygmalion (mythology)', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Pygmalion_%28mythology%29 (accessed 12 May 2013)

the idea of thinking machines came into fruition and people across the land travelled to the Oracles[1] for advice. These Oracles were mechanized statues that priests would hide inside of to operate - almost like an ancient exoskeleton suit. Then, circa 1400 B.C., the Babylonians invented and built a water clock they called *Clepsydra*[2]. This machine worked with early water powered hydraulics through a siphon recycling system, and is today considered one of the first 'robotic' devices.

A final ancient example is an early form of robotics and artificial intelligence, though here we find an exceptional concept of AI, but not the actuality of it. This account comes out of an ancient book, entitled, *Liezi,* by *Lie Yukou*[3], an ancient thinker of the Taoist School in the Warring-States Period of China. The story describes that in the 10th century B.C., the ruler of China at the time, Zhou Mu-King, was returning home after a long journey to the western world. During his return he was visited by a craftsman named Yanshi, and the ruler asked him what he could do. Yanshi replied that he could do whatever the noble ruler wished, but that he already had something built he wished to present. The next day, Yanshi went to visit Mu-King, accompanied by another person. The ruler asked, "Who is that person with you?" and Yanshi replied, "He is an actor that I made." This obviously surprised the King, and he studied this 'actor' carefully as it behaved like a real human.

When Zhou Mu-King touched the jowl of the actor it began to sing. Yanshi then held the hand of the actor and it began to dance. The actor executed complex performances and behaviors according to the directions of its master. The King was so convinced that it was a real person that he called all of his

[1] Marie Parsons, 'The Oracle in Ancient Egypt', Tour Egypt, http://www.touregypt.net/featurestories/oracle.htm (accessed 13 May 2013)

[2] UBR, Inc., 'Clepsydra – from Rees's Clocks, Watches and Chronometers, 1819', http://www.ubr.com/clocks/default/history-of-timekeeping/rees-s-clepsydra-1819.aspx (accessed 12 may 2013)

[3] Lie Yukou, 'Liezi', The First Robot of the World, Oriental Style, http://www.ourorient.com/the-first-robot-of-the-world (accessed 13 May 2013)

concubines to watch the display alongside him. When Yanshi's actor finished its performance, it is said to have made eyes at the concubines, and this angered Mu-King, so he demanded Yanshi be killed at once. Fearful for his life, Yanshi made the choice to dissect his actor right before the eyes of his ruler, showing all internal components to Mu-King.

Surprised once more, the King found that inside what he thought was a real human, was instead a combination of wood, leather, glue, lacquer, and coloring matters. The robotic actor had internal organs, bones, muscle, skin, hair, and teeth like a human - but all were artificial. Yanshi then reassembled his robotic actor and it performed once more for the audience.

At last, the King announced that he will test the robot actor. First, he removed its heart, and the robot could not speak. Next, he removed its liver, and the robot could not see. He then removed its kidneys, and it could not walk. All of these corresponded with the theories of ancient Chinese medicine which held that there was a direct connection between these certain organs and human functions. Zhou Mu-King was so impressed by Yanshi's creation, that he finally exclaimed, *"A human* actually *has such ingenious crafts that he is able to make the same things as the Creator!"*

There is more to the story, but the above statement is a clear indicator of the mindset and overall direction of modern Transhumanists today.

If we reach back 60,000 years to early texts found in Iraq, we could easily collate thousands of examples of where the ideology and philosophy of Transhumanism is approached. In more recent times, however, we find overwhelming historical evidence through mythical or legendary tales describing much of what is now part of the Transhumanism multiplex; evidence involving the utilization of advanced medical machinery found in Egypt, Peru, the Middle East, and other areas. Actual

evidence includes the recent nanospirals[1] found in Russia, viewable only through an electron microscope and estimated to be at least 100,000 years old. Automatic doors that opened and closed on their own have been found in the Mediterranean, and these are just some of many examples across the world of this type of ancient technology.

Much of this information can be found with careful research, and a number of very credible archaeologists[2] and investigative others have found undeniable evidence, and continue to uncover even more. The mainstream archaeological societies, like the Smithsonian Institute and the National Geographic Society, wish to keep this knowledge locked up - and both of those are notorious for swallowing up controversial evidence much like the Vatican swallows up controversial religious-based texts.

I do strongly encourage the reader to follow historical leads and current evidence to build their own conclusion. In my own research, I have assessed and concluded that throughout history, there is an abundance of evidence - both of fact, and fiction - that clearly details robotics, computers, automation, artificial intelligence, bionics, bio-mechanics, nanotechnology; and even virtual reality through the use of colored glass, steam, and reflection, used as Oracles. Our ancient fellow humans were quite clever and created ingenious things which did indeed implement the foundation and philosophies of modern Transhumanism.

[1] Odd Xtreme, 'Russian Nano Spirals', http://oddx.com/russian-nano-spirals/ (accessed 13 Dec. 2011)

[2] Jonathan Gray, Archaeology Answers, http://www.beforeus.com/ (accessed 10 Jan. 2010)

THE DIVISIONS WITHIN TRANSHUMANISM

An overview, including a full definition, brief history, and the current and future impact of each

Artificial Intelligence (AI)

Definition of *ARTIFICIAL INTELLIGENCE*

1. a branch of computer science dealing with the simulation of intelligent behavior in computers
2. the capability of a machine to imitate intelligent human behavior

On August 31, 1955, a paper was drafted and distributed, entitled, *A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence*[1]. This paper was written by *John McCarthy*, *Marvin L. Minsky*, *Nathaniel Rochester*, and *Claude E. Shannon*. It was John McCarthy who was the leader behind this proposal with his ideas about the future of computer science.

The proposal detailed a two month, ten man study of artificial intelligence to be carried out at Dartmouth College in Hanover, New Hampshire, in 1956. It was this project, right out of the mind of John McCarthy that the term 'artificial intelligence' was first used. In fact, McCarthy is, to this day, known as the 'Father of AI'[2], however, some would argue that credit for the title belongs to Marvin Minsky. It was not entirely his own doing as anyone can see when looking into this part of history, but what McCarthy did was formally inaugurate a division for the movement of Transhumanism.

So far, we can see ideas of pseudo-artificial intelligence utilized throughout ancient history. In the not-so ancient past, we even find tales of Egyptian priests crawling into moveable statues to

[1] John McCarthy et al., *A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence,* (Dartmouth College, Hanover, New Hampshire), 31 Aug. 1955

[2] Oracle ThinkQuest Library, 'The History of Artificial Intelligence', Oracle ThinkQuest Education Foundation, http://library.thinkquest.org/2705/history.html (accessed 9 Jul. 2013)

pretend to be Oracles for those who came for prophesy or advice. Moving approx. 3,700 years ahead, we can look at the work of Majorcan philosopher *Ramon Llull*[1] *(1232 - 1315)* who had developed several logical machines that were devoted to the production of knowledge by logical means. His basic principle was to have logical operations produced by the machine so as to produce all possible knowledge. His work paved the way for later philosophers and inventors, but most have been lost in the history books.

Three essential people whose work must be looked at in order to assist in creating this holographic mosaic of the origins of AI, had all lived in the 17th century. The first to mention is the German polymath, *Gottfried Leibniz*[2] *(1646 - 1716)*. Leibniz dreamed of a logical 'thinking' device, and indeed, was the first given credit for creating a mechanical calculator. Liebniz had a long history of work aiming towards mathematics, intelligent design, and even immortality. This is of important note, as he expressed such ideas in what he wrote for the Duke of Hanover, discussing Henry More's *The Immortality of the Soul*[3], circa 1678.

Next, we have the English philosopher, *Thomas Hobbes*[4] *(1588 - 1679)*, who, according to some historians is actually considered the 'Prophet of Artificial Intelligence'. This is not more prevalent than in his proclamation, *By ratiocination, I mean computation*, however, he alluded to these theories later on with his book written in 1651, entitled, *Leviathan, or The Matter, Forme & Power of a Common Wealth Ecclesiasticall*

[1] Georgi Dalakov, 'Ramon Llull', History of Computers, http://history-computer.com/ (accessed 12 May 2013)

[2] Georgi Dalakov, 'Gottfried Leibniz', History of Computers, http://history-computer.com/Dreamers/Leibniz.html (accessed 12 May 2013)

[3] Lloyd Strickland, 'Leibniz: Notes on Henry More's *The Immortality of the Soul*', Leibniz Translations, http://www.leibniz-translations.com/more2.htm (accessed 12 May 2013)

[4] Georgi Dalakov, 'Thomas Hobbes', History of Computers, http://history-computer.com/Dreamers/Hobbes.html (accessed 12 May 2013)

and Civil[1]. In the book, he expresses a number of troubling thoughts, but no one greater than the notion that we should give our obedience to an *unaccountable sovereign* (a person or group empowered to decide every social and political issue), otherwise, he suggests, what awaits us is a 'state of nature' that closely resembles civil war; a situation of universal insecurity, where all have reason to fear violent death and where rewarding human cooperation is all but impossible.

To put it simply, Hobbes believed in the idea of a mechanical process of thinking (i.e., ratiocination) which is best conducted with methodical rules, by which, only adhering to a specific set of mental algorithms would be deemed appropriate.

Finally, we can look at French philosopher and mathematician, *Rene Descartes*[2] *(1596 - 1650)*. Descartes, known as the 'Father of Modern Philosophy', had some interesting ideas on life. He was an avid writer, and as well as publishing a vast amount of work, there was one aspect of his philosophy that sticks out in regards to this subject: he explored the idea that all rational thought could be made to be as systematic as algebra or geometry. This is yet another faint building block found in history that we can credit toward the creation of the 'mechanical mind'.

As time passes on there continues to be known philosophers, mathematicians, scientists, and inventors who lay bare and tweak theories and technological advances in order to develop the intelligent machine. However, as mentioned in the beginning, the term, 'artificial intelligence' coined by the modern father of AI, John McCarthy, really went into full swing

[1] Thomas Hobbes, *Leviathan, or The Matter, Forme & Power of a Common Wealth Ecclesiasticall and Civil* (Printed for Andrew Crooke at the Green Dragon in St. Paul's Churchyard 1651) http://www.gutenberg.org/files/3207/3207-h/3207-h.htm (accessed 12 May 2013)

[2] Michael S. Mahoney, 'The Beginnings of Algebraic Thought in the Seventeenth Century', Princeton University, http://www.princeton.edu/~hos/Mahoney/articles/beginnings/beginnings.htm#1. (accessed 14 May 2013)

during the dawn of the modern computer. Since the 1940s, the world of computer science and engineering has been a fast paced world with innovation around every corner. It is said on average that since the first computer, speed and memory capabilities have doubled every 18 months, but we see that gap getting shorter every day.

The field experts who currently lead the AI division of Transhumanism are the following: Dr. Cynthia Breazeal of MIT[1]; the INDIGO research project[2]; U.S. Navy Center for Applied Research in Artificial Intelligence[3]; DARPA[4]; the OpenCog Foundation[5]; and, the SRI International Artificial Intelligence Center[6]. There are a number of other organizations and corporations, but these, in my well focused opinion, are the key figures and entities. Time permitting, it would be possible to write an expansive book covering the research, development, and future projects of those mentioned, but I am trying to be brief without cheating the reader of substantial information.

What these different groups have in common is that each are striving to reach the perfect cybernetic/robotic being with real-time independent artificial intelligence. Most have already mastered programs of AGI - artificial general intelligence[7]. Think of AGI as a much simpler level of synthetic processing: a computerized brain that can react in basic ways, like avoiding obstacles. An AGI brain will quickly examine the obstacle, find

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[1] Dr. Cynthia Breazeal, Massachusetts University of Technology, Director of Personal Robots Group, http://web.media.mit.edu/~cynthiab/index.html (accessed 15 Jul. 2011)

[2] Interaction with Personality and Dialogue Enabled Robots (INDIGO), Forth Institute of Computer Science, http://www.ics.forth.gr/indigo/index.html (accessed 6 Aug. 2012)

[3] U.S. Naval Research Lab, Navy Center for Applied Research in Artificial Intelligence, United States Navy, http://www.nrl.navy.mil/aic/ (accessed 15 Jul. 2011)

[4] Defense Advanced Research Projects Agency (DARPA), U.S. Department of Defense, http://www.darpa.mil/ (accessed 19 Jul. 2011)

[5] OpenCog Foundation, http://opencog.org/ (accessed 2 Aug. 2012)

[6] Stanford Research Institute International, Artificial Intelligence Center, http://www.ai.sri.com/ (accessed 24 Mar. 2011)

[7] Artificial General Intelligence Society, http://www.agi-society.org/ (accessed 3 Jun. 2013)

a solution, and execute it. A comparable example would be the computer brains that world champion Chess players compete against.

AI, however, as opposed to AGI, is at a completely higher level of thinking. It is a programmed computer brain that not only has the ability to function autonomously, but the ability to *learn independently*. Does this not mean, then, that once a robotic entity has achieved self awareness, which, by definition, IS intelligence, it might, as a matter of course, regard its artificially aware self as a new creation, thereby feeling 'threatened' by its masters?

Think about the ramification of this for a moment. Let us not be unreasonable by imagining that these machines with minds may never consider the pros and cons of civilization, nor our continuously repeated history of war and destruction. If you were a new species on a planet where your creators appeared to be less superior in intelligence, violent, and seemingly archaic in their treatment of it, would you not feel threatened by them, and perhaps take preventative measures?

Science tells us that any creature with any level of intelligence at all - whether a simple virus, or a complex human being - have one very important thing in common; and that is that we carry the desire and the will to survive. This is undoubtedly an ancient initiative contained within the very DNA code itself, and it is prevalent in every form of life, and 100% biological in nature. Suppose, hypothetically, that the programmers who design this new wave of AI robotic beings design an apparent fail-safe mechanism so that the machines were *not* capable of learning such a will to survive: is it truly plausible to say that they never would? I think we must consider the following, with utmost caution:

At first, perhaps, new machines might be incapable of learning self-preservation: let's assume this was due to a deliberate preventative measure. But with intelligence exceeding the human brain, and an artificial version of self awareness, it

would be remiss of us to forget that they are indeed capable of learning independently. We would be foolish to ignore that through the wireless tapping of networks and internets, they would self-educate for purposes of growth and survival - or at least, continuation. This *will to survive*, once only biological in nature, could develop as quickly as it is discovered, until we are faced with the real situation of art imitating life.

If, by now, you don't find that fragile place within you that pulses with a nanobeat of something akin to fear, you're missing a very real point. To illustrate further, we see prime examples of these possible scenarios throughout Hollywood. Movies such as the *Terminator*[1] series align closely with the evolution of reality, in more ways than we might care to admit. In the series, SKYNET becomes self-aware, and figures out almost immediately that humans are destructive, and quickly takes the logical path to eradicate them. We see a similar scenario in the *Matrix*[2] series, but with an additional twist - this time, the machines decide to utilize the human body as biofuel, that is, 'food' for machines. Did you know that the U.S. Department of Defense is working with DARPA on the creation of a robot called the EATR? This will be discussed in coming chapters.

In the movie, *2001: A Space Odyssey*[3], the entire spaceship was operated by HAL 9000 who ended up becoming psychotic. In an animation aimed at tugging the hearts of its young viewers, *WALL-E*[4] took us far into a future where the human race had turned the earth into a galactic garbage dump. Those who were left resided on a planetoid type of mothership: these were fat, lazy, dumbed-down humans, who were 100% dependent on artificially intelligent robots.

Is it possible that any one of these could become our reality, if

[1] *The Terminator*, dir. By James Cameron (1984; Orion Pictures 2001 DVD)

[2] *The Matrix*, dir. By the Wachowski Brothers (1999; Warner Bros. 2006 DVD)

[3] *2001: A Space Odyssey*, dir. By Stanley Kubrick (1968; MGM 1990 TV)

[4] *WALL-E*, dir. By Andrew Stanton (2008; Walt Disney Pictures 2011 DVD)

those behind artificial intelligence lose control of their 'Frankenstein Monster'? With a high level of certainty, the answer is *YES*, and all one has to do in order to agree is look at the huge amount of money the U.S. Military is budgeting for the research and development of AI and its related 'investments'. Some of the best minds in the world are given free rein in high security projects to exceed and excel at, literally, blowing the minds of the rest of the human race in terms of a constructive future.

Constructive might be an unwarrantable word, considering the idiom, *give an inch, take a mile*. Perhaps it should be replaced more appropriately with 'obstructive'. Yet, those human geniuses responsible for developing a future - our future - of artificial automation are not all, in any way, simply the closed-minded 'mad scientist' types employed covertly and used by the cabal for purposes of greater global control. While substantially consumed by technology, I believe that most future minded technologists and evolutionary experts have good intentions, as they see it. One can freely study hundreds of available interviews, with thousands of hours of video, and find that most people involved with AI seem genuinely excited for what they believe is a step in a positive direction. Helping humanity become something greater than it was yesterday, is clearly something marvellous. But we do not live in a utopian world, and we are not even close.

This world is infested with rich, powerful corporations, interwoven with militaries and mindless government agencies that are rife with extreme opportunists. The people within these narrow bands digest new technology at the speed in which it can be assembled, whilst calculating the ways it can be used to assist and expand their goal of become stronger, and more domineering. Consider this preface as you read on, as this is how each possibility is assessed and compared in the coming sections of this book.

Artificial Clouds & Weather Modification (Geoengineering)

Definition of *WEATHER MODIFICATION*

1. any activity performed with the intention of producing artificial changes in the composition, behavior, or dynamics of the atmosphere

The desire to control the weather is as old as human civilization itself. We can find tales from just about every indigenous tribe and ancient gathering of peoples from all corners of the globe, performing cultural ceremonies and rituals of any nature, with virtually no limitation to the degree of emphasis used[1]. From Native American rain dances, to Greek myths of human sacrifice, any length was gone to, to appease the Gods. The Vikings even believed the Finnish people could control the weather, and refused to take the Finns aboard their vessels, and even into the 20th century, superstitions continued among sailors, to refrain from whistling aboard the ship.

Whilst it is not clear that any one person can be credited with founding weather modification, it is possible to pin-point the significant project where it all began. Six members of the Physical Studies group of the General Electric Research Laboratory participated in Project Cirrus[2], and the copies of the three documents I have, totalling to over 160 pages of information, were dated 15 Sept 1948, 15 Oct 1948, and 31 Dec 1948. These resulting reports contain the original Library of Congress stamp from 1951, and were logged into the Navy

[1] Wikipedia The Free Encyclopedia, 'Weather modification', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Weather_modification (accessed 24 Nov. 2010)

[2] Defense Technical Information Center, *Project Cirrus, Final Report on Contract W-36-039-SC-32427*, 1948 (General Electric Research Laboratory, Schenectady, New York); (also referenced is *Project Cirrus-Occasional Report Number 5* and *Project Cirrus-Occasional Report Number 6* both published in 1948)

Research section of the Science Division reference department. The following is the second paragraph of the Introduction section of the Final Report (designation ADB197746):

"For more than four years previous to the above date, a considerable amount of research was conducted by some of this group in the field of the production of artificial fogs, precipitation static, and the icing of aircraft. This was done partly under government sponsorship through NDRC, Army Chemical Corps, and Air Forces, and partly as a Research Laboratory activity. Various reports and papers were published during the course of these studies. [...]"

I suggest it logical to conclude that until proven otherwise, weather modification, or geoengineering, was officially confirmed by written reports in 1948; born in the United States at a laboratory sponsored by the U.S. Military.

As sure as the sky is blue, the atmosphere is clouded with outlandish conspiracy theories about why geoengineering is permitted, who authorizes the action, and most importantly, what the agenda is. And then there are those who can't see beyond their own tunnel vision, and fan away any remark that weather modification is an ongoing issue, regardless of how perceptive, or obvious, the suggestion. I have heard inconclusive debates to explain such ideas like reversing climate change, and others to do with spraying viruses into the air, or atomizing Phosgene Gas. I have even read theories about a global agenda in effect to blanket the sky from benevolent ETs who are apparently orbiting our planet. The list goes on, but with such a vast collection of conspiratorial assumptions I have yet to see one shred of solid evidence in defense of any of them.

Some readers may find this section a curious addition to include in a book about Transhumanism, but in a moment, the reasons will become very clear. Whilst researching 'weather modification' (abbreviated to *WXMod*) for quite a number of years now, I noticed an abundance of similarities in the

application and science with regard to my findings on nanotechnology, biotechnology and genetically modified organisms (GMO). As will be explained in the coming pages, GMO has deep running veins in the H+ matrix, and there are many other vital connections that intertwine between the branches of the H+ tree, and the path of possibility.

Transhumanism is not as simple as some like to believe, overtly claiming authorship from behind their mis-informed blogs and sighting poorly researched articles by 21st century 'armchair activists'. Transhumanism is a massive and sticky web of activity. One branch rarely mentioned, but with a deepening foot-hold, is what is known as 'terraforming'. Terraforming is the concept of creating a liveable environment on another planet or location on Earth deemed inhabitable for humans (including deep underground). Terraforming will be discussed later in the book, but for now, what is important to note is that it concentrates on creating a *breathable atmosphere*. Once you study it from that angle, it quickly becomes clear that WXMod is, by definition, a form of terraforming.

It began as a massive endeavor sponsored by the U.S. Military, but we also find other formerly Top Secret projects involved with the flying of planes into cyclones and typhoons around Southeast Asia, spraying chemical agents like Silver Iodide in an attempt to disperse the storm. This occurred between 1962 and 1983 by the U.S. Government, under Project Stormfury[1]. The research of this technology began migrating to other developed countries around the world like the UK, Russia, Germany, and so on. Though it started as a covert research project, it was not that long before it was quietly released into the public's eye, and is even more prevalent now, since the birth of the internet. However, it was not initially in plain view.

Many people who consider themselves conspiracy theorists will

[1] Wikipedia The Free Encyclopedia, 'Project Stormfury', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Project_Stormfury (accessed 6 Apr. 2010)

tell you that geoengineering is a global covert operation that is quite difficult to get any information about. Unfortunately, these people have not gained the data acquisition and research skills that are taught extensively in the military. 'Hidden in plain sight', a phrase recently associated with false flags and terror tactics, is sometimes the best technique to use in covert (and even overt) operations. With attention spans of roughly 15 minutes in this feverish technological age where everyone is in a rush for information, the average person will generally lose the desire to dig into a website, book, or large stack of documents that might just have the information they are seeking.

To continue, even with documented evidence, the global weather modification project is not covert in most aspects; geoengineering occurs every day, with the technology constantly improving and new concoctions of chemicals being used or tested. The U.S. Military is still conducting contracted research and development in order to weaponize it, and DARPA, the world's largest military defense research conglomerate has a healthy interest in it. State operated and private companies are actively involved with it as of this very moment. I have acquired over 1,000 legitimate and verified documents covering this topic alone: the result of many years of dedicated research. Some of the entities involved in WXMod include: ARM Climate Research Facility[1]; NARSTO[2]; North American Interstate Weather Modification Council[3]; Weather Modification, Inc[4]; and, Seeding Operations & Atmospheric Research (SOAR)[5].

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[1] ARM Climate Research Facility, U.S. Department of Energy, http://www.arm.gov/ (accessed 14 July 2011)

[2] NARSTO, North American Research Strategy for Tropospheric Ozone, Oak Ridge National Laboratory, http://www.narsto.org/ (accessed 4 May 2011)

[3] North American Interstate Weather Modification Council, http://www.nawmc.org/ (accessed 8 Jul. 2012)

[4] Weather Modification, Inc., http://www.weathermodification.com/index.php (accessed 9 Jul. 2012)

[5] Seeding Operations & Atmospheric Research (SOAR), http://www.just-clouds.com/index.asp (accessed 9 Jul. 2012)

The U.S. Air Force has what is now an infamous publication, entitled, *Owning the Weather in 2025*[1], which is worth having a look at. Other documents I recommend are, *Project Gulf Q - Study of Maritime Cumulus Modification US Navy 1969*[2], and in 2010, from the U.S. House of Representatives committee on Science and Technology, a report titled, *Engineering the Climate: Research Needs and Strategies for International Coordination*[3].

Geoengineering is not as big of a secret as people like making it out to be. With cloud seeding, cloud seed ground-mounted cannons, and various other technology, it is indeed changing our atmosphere and climate globally. Look hard enough, and the evidence, as well as the deterioration, continues to accelerate exponentially. But to put it simply, the entire WXMod is synthetically modifying the way this planet's climate normally operates. Any human overtly interfering with nature by means of artificial and synthetic technology is on the Transhumanism path.

Changing the weather eventually causes forced changes for *all* life on Earth. We are seeing the effects in our water, recording the degradation in our forests, tasting it through our food, and marking noticeable differences in the behaviour of our animals - and in ourselves. It is a wonder we are not already discussing the end-game via more mainstream means, which is why we must furiously raise questions based on our 'suspicions', alone.

It seems the goal is to drive people away from rural areas by

[1] The Internet Archive, '*Weather As A Force Multiplier: Owning The Weather In 2025*', U.S. Air Force, 1996, http://archive.org/details/WeatherAsAForceMultiplier (accessed 26 Apr. 2010)

[2] U.S. Navy, Naval Weapons Center, *Project Gulf Q: A Study of Maritime Cumulus Modification*, 1970 (China Lake, California) AD878774

[3] U.S. House Committee on Science, Space and Technology, Engineering the Climate: Research Needs and Strategies for International Coordination, http://democrats.science.house.gov/committee-report/engineering-climate-research-needs-and-strategies-international-coordination (accessed 4 May 2011)

deterring those who thrive off-grid or live harmoniously off the land and enjoy unity with nature, pushing them all towards what are becoming mega-cities. By packing and stacking us into mini-apartments with all the latest in 'Smart' appliances and Wi-Fi radiation electronic devices, we are forced to be dependent on the mega-city centre infrastructure of automated vehicles, RFID everything, CCTV, and nano-drones, and abide by the globalist laws of the United Nations with their Agenda 21 protocol. In other words, a 'Brave New World'[1], garnished with pages right out of the book, *1984*[2] *(George Orwell)*. That is my theory, and whilst I don't believe I am wrong, I implore you to challenge my views for yourself before you dismiss them.

[1] Aldous Huxley, *Brave New World* (London: Chatto & Windus, 1932) http://www.huxley.net/ (accessed 29 May 2010)

[2] The Complete Works of George Orwell, '*1984', http://www.george-orwell.org/1984* (accessed 9 Jun. 2010)

Brain-Machine Interface (BMI)

Definition of *BRAIN-MACHINE INTERFACE*

1. a technology that allows communication between a human or animal brain, and external technology. This term can refer to an interface that takes signals from the brain to an external piece of hardware, or a technology that sends signals to the brain.

You may notice that a number of these subjects have close similarities, and some might even seem redundant, but keep in mind that whilst the principles and technologies may be alike, the applications have their own unique qualities.

You will also notice, if not already, that one organization continues to pop up in just about all of these topics, and this one is no exception. That organization is DARPA (Defense Advance Research Project Agency) and they tend to be quite involved in all areas of Transhumanism.

Brain-Machine Interface (or Brain-Computer Interface) research began in the United States in the 1970s, at the University of California Los Angeles (UCLA) under a grant from the National Science Foundation[1]. It was quickly followed by a contract from DARPA, and the published papers resulting from the research gave us a first look into brain-computer interfacing, and its purpose.

If we step back into history, though, we can actually see where this may have originated from - even just in theory:

[1] Wikipedia The Free Encyclopedia, 'Brain-computer interface', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Brain%E2%80%93computer_interface (accessed 11 Dec. 2011)

Swiss inventor and helicopter builder *Hans Berger*[1] *(1873 - 1941)*, was the first to record human brain activity by means of an EEG. He accomplished this in 1924, and was able to identify oscillatory activity in the brain, such as the alpha wave. This was looked upon as revolutionary, and further works by Berger - as well as others later on - were able to determine that the human brain gave off electrical waves, or patterns. This was an essential ground-breaking discovery; one which began the foundation of what would later be the research into the brain-machine interface (BMI).

BMI technology is used in the field of neuroprosthetics, a branch within neuroscience, in which nanotechnology is an essential key element in linking to any part of the nervous system. There are many online resources one can look into to learn more about the inner workings of BMIs, and this includes the results of animal testing, and medical advancements to replace the function of impaired nervous systems or sensory organs.

Modern BMI in the medical world also involves implants such as neural pacemakers placed in the brain to change people's moods. These devices, after surgical implantation, are calibrated over a course of several days while the patient is awake. Device calibration includes sending the patient through a gamut of feelings raging from depression to complete euphoria. In other words, it is a brain-machine interface that controls a person's emotional state.

To show how BMIs are being developed for a bio-cybernetic world, we can look directly into the field of neurogaming[2], which uses non-invasive BCIs in order to improve a player's

[1] National Center for Biotechnology Information, 'Hans Berger (1873-1941) - the history of electroencephalography', U.S. National Library of Medicine, National Institutes of Health, http://www.ncbi.nlm.nih.gov/pubmed/16334737 (accessed 20 Jul. 2013)

[2] NueroGaming Conference and Expo, http://www.neurogamingconf.com/ (accessed 30 Jul. 2013)

game play. It allows the person to interface with their game console without the need of a controller. This can, in turn, eventually evolve into a widely networked interface gaming system utilizing a BMI that is linked into a global wireless internet.

But aside from gaming and medical advances, we also need to cover the topic of synthetic telepathy or *silent communication*. DARPA has been working on this for a while now, with the U.S. Army investing over $6 million into this research to date[1] - and that is a conservative estimate. Looking deeper, we can find studies into this dating back to the 1960s. These studies are especially alarming as researchers have already built and tested what is known as *cell-culture BCIs*[2]; devices that interface with neural *cells* and entire neural networks in the brain.

The Brain Information Communication Research Laboratory Group[3] based in Kyoto, Japan, came up repeatedly more than any other during my research into this subject. Their website is highly scientific in its language, but it can be followed. They are one of the groups leading the charge in this technology, and one of their goals is to make BMIs economical and readily available for anyone wanting to interface. Their laboratory is divided into 7 departments, and all cover the research of brain-machine related work. I highly recommend the reader at least glimpse over their publications to discover how advanced BMIs have become.

Moving on to the debatable factors of utilizing this technology, the arguments exist that the pros exceed the cons in regards to it being a great revolutionary medical breakthrough for mentally

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[1] Adam Piore, '*The Army's Bold Plan to Turn Soldiers Into Telepaths',* Discover Magazine, http://discovermagazine.com/2011/apr/15-armys-bold-plan-turn-soldiers-into-telepaths#.UhrPCz832So (accessed 20 Jul. 2011)

[2] Michael Schuette, 'Lessons From A Life With nia', Lostcircuits, http://www.lostcircuits.com/mambo//index.php?option=com_content&task=view&id=83&Itemid=47&limit=1&limitstart=2 (accessed 24 Jul. 2013)

[3] Brain Information Communication Research Laboratory Group, http://www.cns.atr.jp/en/ (accessed 11 Dec. 2011)

disabled people, people with traumatic brain injury, or someone in a vegetative state who wishes to communicate with loved ones. But, let us not forget who first began sponsoring this work and has never left its side - DARPA: the largest *defense research* group in the world. Imagine, for a moment, the dangerous possibilities of this type of technology.

As the purpose for writing this book becomes clearer for the reader, the dangers are far reaching, beginning from rouge genuine hackers, and spanning the globe to include the Department of Homeland Security[1] tracking everyone, everywhere, any time; or, perhaps, the NSA[2] will simply data mine your thoughts without you even realising it. We can also add the Department of Defense[3] to this list, who could utilize such technology as a firestorm type shutdown for mass unrest.

Are these real possibilities? If you read what this technology is capable of, the answer is unequivocally, *YES*.

Brain-Machine Interface technology has not only melded with nanotechnology, but biotechnology as well. In fact, research papers have recently been released that discuss the creation of new dissolvable BMI microchips[4] that are inserted directly onto the brain.

People in the conspiracy theory world complain about the dangers of RFID chips, and they are right, but RFID chips are

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[1] Kim Zetter, ' DHS Launches 'Minority Report' Pre-Crime Detection Program', Wired, http://www.wired.com/threatlevel/2011/10/pre-crime-detection/ (accessed 7 Oct. 2011)

[2] Wikipedia The Free Encyclopedia, 'PRISM (surveillance program)', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/PRISM_%28surveillance_program%29 (accessed 2 May 2013)

[3] Dr. Gareth Evans, '*Brain computer interfacing: a big step towards military mind-control',* Army Technology, Net Resources International, http://www.army-technology.com/features/featurebrain-computer-interfacing-military-mind-control (accessed 25 Jul. 2013)

[4] Liz Ahlberg, '*Next Up: Environmentally safe electronics that also vanish in the body',* News Bureau, University of Illinois, http://news.illinois.edu/news/12/0927transient_electronics_JohnRogers.html (accessed 5 Jun. 2013)

dinosaurs compared to what is on the horizon with BMIs. I, myself, am still looking into this subject and eventually will expand exponentially on it.

Cloning

Definition of *CLONE*

1. *a)* the aggregate of genetically identical cells or organisms asexually produced by a single progenitor cell or organism
   b) an individual grown from a single somatic cell or cell nucleus and genetically identical to it
   c) a group of replicas of all or part of a macromolecule and especially DNA <clones of identical recombinant DNA sequences>
2. one that appears to be a copy of an original form

In some ways, the idea of cloning and its involvement with Transhumanism is considered to be taboo although much is known of cloning in the industrialized scientific world, with it being the subject of controversy and heated debate for decades. Some conspiracy theorists and groups within the Truth Movement are adamant that human cloning is apparent and obvious, and some blogs even go so far as to suggest without a shadow of a doubt that certain politicians and members of the elite have already been cloned multiple times; yet, they are never able to offer any substantial evidence. The issue is not that human cloning is not possible, or, for that matter, has not been accomplished, but that we must take a look at the available evidence of what has been done in the past, what we know is being done now, and what could possibly be embarked upon in the near future.

As stated previously, this publicly taboo subject has a relentlessly large following of die-hard believers who have become so wrapped up in the wider fantastical 'science fiction' side of the topic that it encompasses a large part of their often mis-catalogued reality. To reasonably discuss other elements of

genetics, such as debating the future dangers of cloning the human form, one is often met with blind hostility. Human cloning technology has a pivotal list of ethical and moral considerations to acknowledge, as well as being a far more dangerous evolutionary path to walk than simply making an exact replica of oneself, when a need arises.

Cloning has been, and is being, actively researched and developed in laboratories all over the world. The test subjects range from micro bacteria to farm animals, as well as plants and food. Although in the United States the technology to conduct human cloning - and even stem cell research - has been heavily debated and regulated, there has been little to no push by the public to demand further research into the cloning conducted on everything else.

The majority of the public are unaware, or perhaps never stop to consider, that the meat patty from just one hamburger has on average, sources of meat from around 1,000 cows[1], and the percentage of cows that were actually made by the cloning process grows higher by the year[2]. Unless you are concerned about buying non-GMO, it is highly likely that the items you select with your grocery budget may actually be your personal purchase of offspring from cloned produce - or cloned produce itself: in other words, 100% certified *laboratory produced*.

Eating cloned produce and GMO foods will no doubt affect your health, and so, becoming sick and requiring a medicine like penicillin, or an antibiotic (which should be avoided), will likely mean that the medicine or vaccine you are putting into your body is yet another product of synthetic biology, created for, and by, the cloning process itself.

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[1] What's Really Fast Food?, The Community College of Baltimore County, http://student.ccbcmd.edu/~mashkene/fastFoodNation/hamburgers.html (accessed 27 Jun. 2013)

[2] Trans Ova Genetics, http://www.transova.com/ (accessed 17 May 2013)

The history of how cloning came about is interesting as it deals with, in many ways, the birth of microbiology and other related fields - and if we look at it in this way then we could say that the first evolutionary steps taken towards this technology happened in 1608 when *Zacharias Jansen*[1] invented the first microscope, introducing the world to the microorganism cosmos. Many science and technology related innovations took place over the next 350 years, and in the1960s, the debate of human cloning reached the public's eyes and ears[2].

However, the study of cloning and genetic engineering was being conducted by some German scientists during World War II in order to create more *perfect humans*, and multiples of such. The scientists that survived the war were brought to the United States shortly after under the direction of Operation Paperclip[3].

Through the 1960s, and into the early 1970s, a number of published papers hit the public arena regarding this subject. The information was not only compelling, but it was the work of highly regarded scientists, and specifically geneticists, and yet, it just sort of washed away. Why?

It is extremely odd that when researching the history of cloning, there seems to be a heavy lack of information, since cloning is certainly not a subject that has been disregarded by the governments of the world. The United Nations[4], the World

[1] History of the Microscope, 'Hans and Zacharias Jansen: A complete microscope history', http://www.history-of-the-microscope.org/hans-and-zacharias-jansen-microscope-history.php (accessed 12 Jun. 2013)

[2] Basic Science Partnership, 'History of Cloning', Harvard Medical School, The President and Fellows of Harvard College, https://bsp.med.harvard.edu/?q=node/18 (accessed 17 May 2013)

[3] Operation Paperclip, http://www.operationpaperclip.info/ (accessed 24 Nov. 2011)

[4] UN News Centre, '*General Assembly ban on all human cloning to be reconsidered by UN ethics panel*', United Nations, http://www.un.org/apps/news/story.asp?NewsID=28544&Cr=clo..#.Uhrfez832So (accessed 17 May 2012)

Health Organization[1], the United States Military[2], the U.S. Food and Drug Administration[3], the U.S. Center for Disease Control[4], and various other entities, have been focused on cloning research, funding its progression, and, reporting on it for decades. So, with an underwhelming bulk of available data, something is definitely awry.

With cloning being an eerily unspoken topic, does this suggest that it could be nothing more than a fictitious urban legend for the crazy, or gullible? Not a chance, because whilst the information might require a lot of digging to find, I have managed to secure over 360 documents from the entities mentioned above, and others from many more. Cloning did not disappear, but it has taken huge leaps in advancement and is a clear and present danger to life.

One could argue that cloning has pros and cons, and they would be correct. Finding the balance between both is the trouble. In the area of stem cells, cloning is being researched in order to cure diseases such as cancer, among other illnesses. As a side note, there is a growing belief following evidence to suggest that the mainstream medical world are not sharing what they know about many life-threatening diseases like cancer, but that is another line of research that needs review elsewhere, and I would strongly suggest the reader follow through on this.

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[1] World Health Organization, Publication search on Cloning, http://apps.who.int/iris/simple-search?query=cloning&submit=Go (accessed 12 Feb. 2012)

[2] Kurzweil Accelerating Intelligence, 'DARPA, Venter launch assembly line for genetic engineering', KurzweilAI Network, http://www.kurzweilai.net/darpa-venter-launch-assembly-line-for-genetic-engineering (accessed 23 May 2012)

[3] U.S. Food and Drug Administration, 'Animal Cloning', U.S. Department of Health & Human Services, http://www.fda.gov/AnimalVeterinary/SafetyHealth/AnimalCloning/default.htm (accessed 17 May 2013)

[4] Centers for Disease Control and Prevention, 'Genomics and Health', U.S. Department of Health & Human Services, http://www.cdc.gov/genomics/public/faq.htm (accessed 7 Apr. 2013)

Stem cells can be grown (cloned) and either reintroduced into the area that needs repair, or the organ needing replacement can be grown externally in a sterile environment. Genetic scientists have already proven that growing organs (noses, ears) on the backs of mice and rats actually works[1]. Innovations have since progressed, and we will continue the topic of cloning human body parts in another section that will go directly into the link between cloning and the Human Genome Project. More on that later.

Some may argue that the cloning of farm animals, such as sheep, pigs, chickens, cows, and even horses, serves humanity well. When was the last time you recall hearing about the FDA, or USDA doing something truly beneficial for the people of mankind? Right now there are ranches and laboratories all over the United States cloning the animals mentioned above for the purposes of horse racing, animal shows, auctions, and designing 'better quality meat'[2], as well as allegedly saving the consumer some money by making a cheaper product. But let us not forget that animals *are not* a 'product'.

In researching cloning and discovering a small portion of the greater many, like Bovance[3], Trans Ova Genetics[4], VIAGEN[5], and, Start Licensing Inc.[6], it became clear that the shortage of farm animals is not the problem - we are. We are too concerned about consumerism and consumption; too greedy and lazy to give a damn about eating the right food, carelessly taking rights

[1] Public Broadcasting Service, 'The Body Shop', http://www.pbs.org/saf/1107/features/body.htm (accessed 1 Aug. 2013)

[2] Davey Alba, '*World's First Lab-Grown Burger Unveiled and Eaten in London*', IEEE Spectrum, http://spectrum.ieee.org/tech-talk/energy/environment/worlds-first-labgrown-burger-unveiled-and-eaten-in-london (accessed 5 Aug. 2013)

[3] Diane M. Broek, Melain Rodriguez, 'Important Notice to All Bovance Customers', ViaGen, http://www.viagen.com/news/important-notice-to-all-bovance-customers/ (accessed 17 May 2013)

[4] Trans Ova Genetics, http://www.transova.com/welcome.html (accessed 17 May 2013)

[5] ViaGen, http://www.viagen.com/ (accessed 17 May 2013)

[6] Start Licensing, Inc., http://www.startlicensing.com/index.html (accessed 17 May 2013)

away from our animals and calling *them*, instead, our 'food'. It is the human race that is the problem, and because we cannot get a grip on our gluttony, these forms of life are being subjected to research and development under the banner of cloning to create MORE desire for consumption, more prized money-making show horses, and millions more buckets of drum sticks.

There are also the animals being used as tools for growing human stem cells, and this creates a need for us to reverse the roles and question the legitimacy and ethical nature of genetic science with regards to our right to determine and rank the importance of any form of life. If an evolved race of beings approached us openly, seeking our assistance to repopulate after destroying themselves by cloning, greed, and over consumption, I question whether we'd offer our lives for cloning, however 'humanely' it was presented, even if it were carried out under strict regulation and oversight.

The deeper we look into cloning, the greater the arguments become in support of both sides. It is hard to argue against it being good for the production of medicine - but it can be done. When we discuss the topic of medicine and cloning we also have to consider the sciences of synthetic biology and biotechnology, and, regarding this, one profound question can be asked immediately to an intelligent critical thinker, who would most likely answer with an undeniable and absolute 'no': *Would you inject, inhale, or injest an unknown laboratory synthesized microorganism, if there was no way of knowing whether the medicine was 100% organic?* Clearly, we can see that this issue is much more complicated than stated, which is why we will approach this in a section of its own.

It is just as difficult to dismiss cloning when we consider it for the brilliant innovation of *biofuel*[1]. In some environmental circles, biofuel is the glorious savior from fossil fuels. But can

[1] Biotechnology for Biofuels, Articles, BioMed Central Ltd., http://www.biotechnologyforbiofuels.com/content/6/1/26 (accessed 7 Aug. 2013)

you guess what matter is being genetically manipulated and cloned at the greatest levels in biotechnology labs for the research and production of biofuel? The answer is algae, a large group of diverse, mostly aquatic organisms, essential, among other things, for keeping our atmosphere breathable.

Diverge from these pages for a moment, and take a look at how biofuel is made[1], and consider this in regards to it: When various genetic food labs were working on the new GMO salmon[2], they had the test subjects in closed off fishery ponds - but those ponds were not 100% secure. Some of the salmon slipped out, and although it is not spoken of, there is a justified fear of the GMO salmon breeding with wild natural salmon, and this could cause a number of problems that will roll out over time, including infertility. If we now relate this to a huge biofuel processing center with trillions of tiny algae plants that are being tweaked, cloned and genetically manipulated on a continuing basis, we realize that the alarming possibility of some live species washing through into the wild is massively high.

But the issue does not stop there. Scientists, geneticists, and big oil companies are looking into the following as additional biofuel possibilities: GMO corn; potatoes; frog foam (a photosynthetic material with a number of uses); chicken feathers; tobacco plants; soy beans; and, among countless others, the conversion of CO2 into a liquid fuel with bacteria. The list goes on and on.

In concluding this very summarized section on the topic, I wanted to state that I do believe, and know, that there is an

[1] Tina Casey, '*ExxonMobil's Excellent Algae Biofuel Adventure…Or Not*', Clean Technica, http://cleantechnica.com/2013/05/20/exxonmobil-algae-biofuel-research-appears-to-scale-back/ (accessed 20 May 2013)

[2] Melanie Leather, '*Warning over GM fish: hybrid salmon can breed with wild species and harm ecosystem',* The Independent, http://www.independent.co.uk/environment/nature/warning-over-gm-fish-hybrid-salmon-can-breed-with-wild-species-and-harm-ecosystem-8636294.html (accessed 29 May 2013)

Above Top Secret human cloning/genetic manipulation project happening right now. When the scientific community, or the military, make some kind of advanced technology public, you can be certain that in their secretive world it is actually obsolete. Too many leaks in the past within the government, military, and private industries have proven time and time again that there is much happening behind closed doors, and even more occurring deep underground. Cloning, in all its variations and aspects, is playing the highly sought out role of 'The Creator', and nothing is more dangerous. It takes just *one* infinitesimally small or miscalculated mistake for a horrible chain reaction to occur that could bring an unwanted sea change in the life of humanity, or the life we are supposed to coexist with on this planet.

Cloning carries the possibilities of more control, more over-consumption, more greed, and even the creation of uncontrollable genetically designed pandemics, however unintentional or remotely small the probability of that might be. Before we leave this topic, I have a recommendation for the reader in the form of a movie. It is simply titled, *Moon* (2009)[1], and though I will not give a description, I highly recommend the reader considers watching it.

[1] *Moon,* dir. by Duncan Jones (2009; Sony Pictures, 2011 DVD)

Codex Alimentarius

Definition of *CODEX ALIMENTARIUS*

1. a collection of internationally recognized standards, codes of practice, guidelines, and other recommendations relating to foods, food production, and food safety

Codex Alimentarius, whilst not a technology that can be categorized under the Transhumanism construct, is, indeed, a Transhumanism based agenda. In order to explain why it is a hazard for humanity, a simple and brief description is all that is required.

The term is derived from *Codex Alimentarius Austriacus*[1], and was created in the Austrian-Hungarian Empire between the years 1897 and 1911. Officially, the decision to establish this collection of food standards was suggested in 1891, in Vienna, but not formed until the years aforementioned. It was not an agenda that set any specific laws, but was more of unofficial guideline as a result of the volunteer work and studies by experts in the food industry and related universities. Yet, as it grew in popularity, the courts began to use it within the empire as an enforcement guideline where required. This would pave the way decades later for a global controlling organization.

In the early part of November 1961, a Commission was established by the Food and Agriculture Organization of the United Nations[2]. It was given the name, Codex Alimentarius Commission, and in 1962, was joined by the World Health Organization, controlled also by the United Nations. Held in

[1] Wikipedia The Free Encylopedia, '*Codex Alimentarius Austriacus',* Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Codex_Alimentarius_Austriacus (accessed 1 May 2011)

[2] Food and Agricultural Organization of the United Nations, http://www.fao.org/home/en/ (accessed 6 May 2011)

Rome in 1963, the first session was met with the main goal of protecting the health of consumers. It quickly became recognized by the World Trade Organization as an international reference point, specifically to control and protect the consumer in relation to food safety, and health.

Currently, according to their website, the Codex Alimentarius Commission[1] have: 186 Codex Members, 185 Member Countries, 1 Member Organization (European Union), 220 Codex Observers, 49 Inter-government Organizations, 150 Non-government Organizations and 16 UN. These figures increase every year, and in fact, as stated on their website, they cover 99% of the world's population when it comes to regulating food and health. *That is disturbing*.

The threat, and why it is not all that complicated, is because they make no attempt to hide their intentions. Looking at their website alone, one can see plainly what their agenda is: in short, this commission wants to set (and already has) global standards on what you can and cannot eat and in what quantities, and what vitamins you are allowed to consume as well as those you are not. In the European Union[2], there has been much uproar due to the regulatory push the commission is involved with to suppress - and even stop completely - certain organic foods and vitamins[3]. They are silent, however, when it comes to GMO food and animal products.

As a global regulatory force, the Codex Alimentarius Commission are not concerned with making sure the populace are eating the required nutritional components in the correct amounts to remain healthy. This is a commission that has

[1] Codex Alimentarius, FOA of the United Nations, World Health Organization, http://www.codexalimentarius.org/ (accessed 30 Apr. 2011)

[2] Lord Rudi C. Loehwing, 'Codex Alimentarius a Self-Fulfilling Prophecy ', *Examiner*, 5 Dec. 2012, http://www.examiner.com/article/codex-alimentarius-a-self-fulfilling-prophecy (accessed 11 Apr. 2013)

[3] Gregory Damato, Ph.D., 'Combating the Codex Alimentarius', *Nexus Magazine*, Oct.-Nov. 2008, Vol. 15, No. 6, http://www.whale.to/b/damato.html (accessed 5 Jan. 2011)

created regulations to cover pesticides, herbicides, veterinary medicine, organic vitamins and minerals, food additives, organically produced food, food biotechnology, milk production, water . . . and the list does not stop there. Read more in the 'Standards' section of the website, under 'Thematic Compilations'[1].

There exists not one supporting argument for this global commission that I can reasonably consider. People should have a right to choose what they eat and how much of it they consume, regardless of anyone's opposing views. I personally prefer fresh organic food and stay far away from GMOs. On rare occasion I will eat some certified organic meat, and I also choose when to have real organic vitamins and minerals. That, simply put, is my freedom - and it is exactly the same level as yours.

But the Codex Alimentarius Commission frowns upon people who do not follow their global guidelines. Non-compliant 'bad examples' are not respected. If, by chance, their agenda is finally implemented, we should expect a world such as the one depicted in the movie, *Idiocracy* (2006)[2], in which people drank only Gatorade and consumed a thick pasty liquid food that came in a bucket.

It would be wise to remember that this commission was born out of the United Nations, who are the architects of Agenda 21[3], which was the product of the 1992 UN Conference on Environment and Development[4]. Agenda 21 consists of a 300 page document of the United Nation's plan for global

[1] Codex Alimentarius, 'Thematic Compilations', Food and Agriculture Organization of the United Nations, http://www.codexalimentarius.org/standards/thematic-publications/en/ (accessed 7 Jul. 2013)

[2] *Idiocracy,* dir. by Mike Judge (2006; 20th Century Fox, 2011 DVD)

[3] American Policy Center, 'Agenda 21', http://americanpolicy.org/agenda21/ (accessed 27 Jul. 2013)

[4] Wikipedia The Free Encyclopedia, 'Agenda 21', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Agenda_21 (accessed 23 Feb. 2011)

'sustainable development'[1]. Learn about Agenda 21, and then learn about Codex Alimentarius, and you will see that each entity intertwines their ideas and agendas. This is not a conspiracy theory, but an actual fact that they make no effort to hide.

In closing, we can see how this is easily placed into an agenda based category under the Transhumanism construct. The commission has taken no firm negative stand against genetically modified organisms, and they are supporting biotechnology and have even waged campaigns in heavily suppressing all organic food and vitamins. There is no doubt remaining that corporations like Monsanto have influence within the commission - and that should anger you in more ways than one. Transhumanism is an agenda to transform humanity by way of *synthetic evolution*, and, in order to do so, they must also have complete control of the food, the medicine, and the vitamins that we put into our bodies.

If you wish to learn more about the Codex Alimentarius Commission, their website is an excellent place to start. It reaches far beyond what most may think or know.

[1] United Nations Sustainable Development Knowledge Platform, 'United Nations Conference on Environment & Development – Rio de Janerio, Brazil, 3 to 14 June 1992', http://sustainabledevelopment.un.org/content/documents/Agenda21.pdf (accessed 30 Apr. 2011)

Cryonics

Definition of *CRYONICS*

1. the practice of freezing a person who has died of a disease, in the hope of restoring life at a future time when a cure for the disease has been developed

Whilst not a completely thorough overview, the documentary, *Cryonics: Death in the Deep Freeze*[1], gives an informative outline for those who have little or no knowledge of this technology. There are many myths surrounding cryonics, but on the whole, this is not a technology that is very complicated. If there is an Above Top Secret cryonics project within any government in effect today, I have not been able to find anything even remotely in speculation of it. This, of course, does not mean that behind the secretive closed doors of 'unofficial' special projects, cryonics is being forgotten. As mentioned previously, technology given to the public is often anywhere between 30 to 100 years behind the highly classified advancements that we are being kept in the dark about.

Could cryonics really work? Could there be serious corporations, governments and laboratories really working on a technology made popular through science fiction movies and Hollywood - one that we jokingly make reference to without even realising it? When Senator John McCain was selected to run for President of the United States, many were shocked, and most did not even know who he was, but those of us with knowledge of cryonics would make reference to his 'reanimation', a term used for bringing a person out of cryogenic state. *"Who in the hell reanimated HIM?"* some would ask, with similar jokes being made about politicians and other cabal

[1] *Cryonics: Death in the Deep Freeze,* http://topdocumentaryfilms.com/cryonics-death-deep-freeze/ (accessed 4 Dec. 2011)

members who would suddenly pop up publicly again after a period of inactivity.

In reality, cryonics *could* actually work, and there is growing support for it by people from all walks of life. Cryonics, or cryopreservation, is basically a technology for those in search of cheating death: the mystical quest for immortality that ancient Sages and Shamans right throughout time have sought to find. From the ruling elite, to members of royalty, alchemists were chartered by those in power in the early centuries to find remedies to slow or stop death. Those with the privilege to live longer, or indeed, live forever, felt it was their legacy to do so if they could.

With the desire for immortality found in the myths of ancient civilizations the world over, this is not a new concept, however, the technological birth of cryonics happened only very recently. In 1962, a Michigan college physics professor, *Robert Ettinger*[1], in a privately published book, entitled, *The Prospect of Immortality*[2], proposed the process of freezing people and holding them in controlled containments. He discussed why, and suggested that this may be a possible way to reach future medical technology in respect to curing disease and genetic defects. Ettinger argued that even though freezing a person at the time would be fatal, if done so under controlled conditions it may be possible to bring them back to life in the future. His work earned him the title, 'Father of Cryonics'.

It was a man by the name of *Evan Cooper*[3], though, who would be known as the 'Seeder of Cryonics'. Cooper founded the Life

[1] Wikipedia The Free Encyclopedia, ' Robert Ettinger', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Robert_Ettinger (accessed 10 Oct. 2011)

[2] Robert Ettinger, *The Prospect of Immortality* (Ria University Press, 2005) http://www.cryonics.org/book1.html (accessed 12 Jun. 2013)

[3] Ben Best, *'A History of Cryonics'*, Cryonics Institute, http://www.cryonics.org/immortalist/september08/History.pdf (accessed 12 Jun. 2013)

Extension Society[1], in 1963 - the world's first cryonics organization. His intention was to create a global network of institutes to further research and develop this idea. Today, you can clearly see that his dream became a reality.

The term, 'cryonics', was first coined in 1965 by *Karl Werner*[2], a New York industrial designer. Werner, along with some partners, founded the Cryonics Society of New York[3]. Soon after, Werner succumbed to the tentacles of Scientology and as most who had fallen into that trap, he was lost. His partners continued on with the society and remained devoted. As an interesting part of the history, on January 12th, 1967, a television repair man by the name of *Robert Nelson*[4], who was the driving force behind the Cryonics Society of California[5], froze the first person ever in a cryogenic state. That man was Psychology Professor, James Bedford. Bedford was kept in a controlled cryogenic state under the care of the California society until 1982, and was then transferred to the now world renowned, ALCOR Life Extension Foundation[6].

Cryonics is an interesting technology, and its body of men and women involved are an unconventional mix of researchers, scientists, doctors, and quite a number of volunteers with no experience in the aforementioned fields. There is not really a set regulatory manual for the process of cryonics, and depending on which organization or institute you look at, will depend on which technology, methods, and even ethics, they use and

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[1] Wikipedia The Free Encyclopedia, 'Life Extension Society', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Life_Extension_Society (accessed 7 Jun. 2011)

[2] Wikipedia The Free Encyclopedia, ' Cryonics', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Cryonics (accessed 12 Jun. 2013)

[3] Ben Best, '*The Cryonic Institute's 95th Patient*', Cryonics Institute, http://www.cryonics.org/reports/CI95.html (accessed 8 Jun. 2011)

[4] R. Michael Perry, '*Suspension Failures: Lessons from the Early Years',* Alcor Life Extension Foundation, Jun. 2010, http://www.alcor.org/Library/html/suspensionfailures.html (accessed 23 Nov. 2012)

[5] Charles Platt, '*Robert Nelson and the Chatsworth Scandal',* Cryonics Institute, http://www.cryonics.org/immortalist/november05/nelson.htm (accessed 23 Nov. 2012)

[6] Alcor Life Extension Foundation, http://www.alcor.org/ (accessed 11 Oct. 2011)

follow. For this reason, it will not be possible to break down in extensive detail how this is done because it will become far too complex and drawn-out for description.

The basic technology, principles and long term goals, however, are all the same, and here it is, in simplicity[1]: a person knows they are dying, and, fearing death, they find a cryonics institute, and an agreement is signed between the two parties forming a contract of care. At this point I must mention quickly that the fees for keeping a person held in a cryogenic state are, as you might have guessed, quite expensive. Next, the person's family, or care giver, notifies the institute upon (or moments away from) death. The person is then transported to the cryonics facility, and after being declared deceased, the slow and delicate freezing process begins. Upon completion, the body is put into a containment vessel where it is monitored for as long as someone is paying for it. The intention is for this to continue until the technology exists to reverse the process and reanimate the person. These are the absolute basics, but I do encourage you to watch the documentary mentioned at the beginning of this section.

I simply cannot agree that this technology can be seen as a positive tool for the continuation of life. Further to this, I have been unable to find any evidence, including direct quotations or references from those working in the field, to suggest that the reversing technology used to reanimate the deceased person has been developed. There is not yet even a definite or estimated timeline on when it might be available. This is not to say that it is not possible; it may very well be a case of being kept in the dark by those controlling entities within secret government projects, however, right now, I see it only as a road to broken hearts and false promises, for the moment.

Whilst death is natural, I do believe immortality is real by way

[1] Alcor Life Extension Foundation, 'Procedures', http://www.alcor.org/procedures.html (accessed 11 Oct. 2011)

of *reincarnation*. That is my opinion because I believe our souls are what we must maintain, and all of these technologies within the Transhumanism construct can only be seen to do the opposite. Transhumanism focuses on 'saving' the *biodegradable* shell, and piecing it together, quite literally, with non-human technology that might feed it electrical impulses or provide some chemical stability, but that alone will not allow you to become immortal. Well, perhaps only immorally, and even then just temporarily.

Let us consider the following scenarios:

Unfortunately you are dying, but suddenly you hear that a major corporation has been granted permission to begin cloning, and you learn that while they cannot save your current body, it will be possible to 'upload' everything you have in your mind, store it in a quantum computer, take some of your DNA, and grow an exact duplicate of you. Your mind (or perhaps a copy of it, since it is now completely digital) will then be transferred into the new body and just like that, you (or is it?) are 'born again'.

You decide you do not want to be cloned, as cloning does not extract, store, and reinsert your soul (only your mind), and you discover a new competitor with a slightly different tactic: this company deals with cryogenic technology. So you choose cryogenics because you want to keep your soul. You die, they deep freeze you, and your body remains clinically dead for maybe 5, 10, 25, or even 50 years, until they finally decide to either cease the entire project due to expenses and your body, along with countless others, gets incinerated, or, alternatively, they could finally perfect reanimation.

There is one problem though, because not only have you been dead for quite a long time, and the world around you has changed exponentially, but you are still the age you were at passing. Hypothetically, you might have been 78 years old when cryogenics was made public, but after a number of years on ice, this figure still remains the same. With luck, what killed you the first time might finally be curable now, but you have

only succeeded in delaying the real journey home for the remainder of the average human lifespan. Of course, there may be other medical technologies for life extension by this point, but physical age regression is another matter entirely.

Life is a journey, and we all die. Death is not the end, but the beginning of the next adventure, regardless of your beliefs. Cheating death will always be a poor attempt at mimicking God, and history has proven that when humans behave God-like, the results are always disastrous.

Cybernetics

Definition of *CYBERNETICS*

1. the science of communication and control theory that is concerned especially with the comparative study of automatic control systems (as the nervous system and brain and mechanical-electrical communication systems)

The word 'cybernetics' has an interesting history[1], and its origins may surprise you. This word has been used historically to describe *control*. The earliest example can be found in the writings of the Greek Philosopher, *Plato (429 - 347 B.C.)*[2], who used it in the sense of 'the art of steering' and 'the art of government'. *Louis Couffignal (1902 - 1966)*[3], a French Mathematician also known as a cybernetics pioneer, considered cybernetics in definition as 'the art of assuring efficiency of action'. Other examples in history show 'cybernetics' to share the same root definition as the words 'governor' or 'government' - basically meaning 'to control', or having a relationship with the act of controlling.

The birth of cybernetics can be traced to one source and three men. The source was Massachusetts Institute of Technology (MIT) and the three men were: Mathematician *Norbert Wiener*; Neurophysiologist *Warren McCulloch*; and, Professor *Jay Forrester*. It was during the 1960s when these three men laid the stepping stones for the research and development of this

[1] Wikipedia The Free Encyclopedia, 'Cybernetics', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Cybernetics (accessed 12 Jun. 2013)

[2] Kraut, Richard, 'Plato', *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition), Edward N. Zalta (ed.), forthcoming URL = <http://plato.stanford.edu/archives/fall2013/entries/plato/>. (accessed 26 Jul. 2013)

[3] Georgi Dalakov, 'Louis Couffignal', History of Computers, http://history-computer.com/Babbage/LouisCoufignal.html (accessed 12 May 2013)

technology today. It was Wiener who defined the scientific study of cybernetics as 'the scientific study of control and communication in the animal and the machine.' This definition will have significance to what will shortly follow.

Cybernetics quickly grew in the 1970s and has continued evolving to this day. What makes the 1970s era of cybernetics unique as a turning point, was integrating biology into the study. Cybernetics has become more than just a study of technology to control or govern a computerized machine. It has now melded with technologies of synthetic biology, biotechnology, nanotechnology, brain-machine interface, and even artificial intelligent robotics. In fact, it has been related and incorporated into the studies of mechanics, as well as physical, biological, cognitive and even social systems. This technology is considered a closed-loop system, meaning that it is the controlling power over one system or network. Examples might include a cybernetic brain-machine interface that controls, independently, humans thoughts and reactions, or perhaps a cybernetic artificial intelligent network that operates everything in your house.

Cybernetics is a unique Transhumanism technology in that it is a technology *defined* by its name, but not restricted to it. We could use nanotechnology as a cut and dry example of what cybernetics isn't, because nanotechnology deals with extremely tiny mechanical and synthetic machines, so you cannot have a 5000 pound robot and say it is a nanobot. On a similar note, we have cryonics, which can only work with a deep freezing process. But when we are talking about cybernetics we are referring to a very broad range of methods and technologies. What this means is that this technology is able to govern or control a singular entity or network. This includes everything from cyborg tissue, which is a synthetic skin[1] created with

[1] Liz Ahlberg, '*Smart Skin: Electronics that stick and stretch like a temporary tattoo',* (11 Aug. 2011) News Bureau, University of Illinois, http://news.illinois.edu/news/11/0811skin_electronics_JohnRogers.html (accessed 15 Aug. 2011)

nanowires and human tissue, to autonomous robots utilized by police and military. The range of this technology is truly vast.

Boston Dynamics[1], one of the leading companies dealing with cybenetics who originated out of MIT in 1992 is a heavy hitter, and has received contracts from the infamous DARPA for many years. One cybernetic robot they recently became famous for is *BigDog*[2]: a four-legged all terrain robot that is being developed as a mobile work-horse for ground operations by soldiers. They also have *SandFlea* and *RHex* which are again unique, and have cybernetic qualities.

DARPA, of course, is heavily into cybernetics[3] but not just for robotics. They have open solicitations and current contracts dealing with cybernetics on a more biological side, which does involve brain-machine interfacing. One nifty little research project consists of a pilot wearing what looks like a swimmers cap from the future so that the pilot, using their mind, can fly a helicopter drone. This is nothing new, though, because in a 1986 document from the U.S. Army that had been 'acquired' from Soviet Russia, entitled, *Neuron-like Modeling and Computing Structures*[4], we find in an 18 page discussion which proposes the development of cybernetics by way of a BMI type technique.

Why do I feel cybernetics holds dangers within its ideology? Considering its near infinite range of uses in many sciences and

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[1] Boston Dynamics, http://www.bostondynamics.com/

[2] Boston Dynamics, 'BigDog', http://www.bostondynamics.com/robot_bigdog.html (accessed 18 Aug. 2012)

[3] U.S. Department of Defense, Defense Advanced Research Projects Agency, Prepared by Judith A. Daly (Program Manage), *Close-Coupled Man/Machine Systems Research (Biocybernetics)*, Program Elements: 61101E, 62709E, (April 1981) http://www.dod.mil/pubs/foi/Science_and_Technology/DARPA/877.pdf (accessed 19 Jul. 2011)

[4] U.S. Army, U.S. Army Intelligence Agency, *Neuron-like Modeling and Computing Structures,* (Russia, original authors; A.V. Kalyayev, Yu. V. Chernukhin, 1986) Resource for getting a copy- http://www.theblackvault.com/documents/cloning/neuron.pdf (accessed 6 Apr. 2010)

industries, cybernetic technology is being developed for the purpose of governing and control, and 99% of the research and development involves intelligent robotic machines and humans. If I have to explain it in more detail than that, then the Transhumanism matrix is not taking on its dangerous three dimensional construct as clearly in your mind as it should.

Electroceuticals: The Cyber-Pharmaceutical Prison

I could have included this latest technology in the **Nanotechnology** section but I felt it needed to be focused on solely since it very well has the potential of going global.

Electroceuticals, classified as bioelectronic medicine, are nano-scale devices that connect to a group of individual nerve fibers, and change patterns of electrical signals to restore health to organs and biological functions[1]. The Heart MD Institute describes them as being *'non-invasive devices which transmit therapeutic forms of electromagnetic radiation throughout bodily tissue.'* It also states that *'[h]eat, electricity, sound waves and magnetism transmitted through electroceutical devices can enhance the body's natural capacity to heal by optimizing cellpulsation[2].'* In other words, it is an implantable new-age pharmaceutical that works on a similar technology as RFIDs.

The two companies working together and leading the way in this very new technology, still in its infant stage, are GlaxoSmithKline (GSK)[3], and the Neuromodulation Unit[4] at Medtronic, Inc. GSK are one of the global leaders in pharmaceuticals, vaccines, and consumer healthcare. Medtronic, Inc. is the world's largest medical technology company, who deal with a lot of things that qualify as

[1] John Blau, 'The Future of Pharmaceuticals Could Be Electronic Implants', *IEEE Spectrum,* 26 Jul. 2013, http://spectrum.ieee.org/biomedical/devices/the-future-of-pharmaceuticals-could-be-electronic-implants (accessed 26 Jul. 2013)

[2] HMDI Editors, 'Electroceuticals', *Dr. Stephen Sinatra's Heart MD Institute,* 08 Apr. 2010, http://www.heartmdinstitute.com/health-topics/alternative-medicine/99-electroceuticals?showall=1&limitstart= (accessed 27 Jul. 2013)

[3] GlaxoKlineSmith plc., 'Bioelectronics', http://www.gsk.com/explore-gsk/how-we-do-r-and-d/bioelectronics.html (accessed 27 Jul. 2013)

[4] Medtronic, Inc., 'Nueromodulation', http://www.medtronic.com/about-us/businesses/neuromodulation-neurostimulation-systems/index.htm (accessed 26 Jul. 2013)

Transhumanism technology. But it is their Neuromodulation Unit that gets very high tech, with H+ research and development in the areas of Deep Brain Stimulation Therapy, Drug Infusion Systems, Gastric Simulation Systems, and several more.

These two pharmaceutical giants have teamed up for the next new wave of bioelectrical integration specifically to create electroceuticals. Since electroceuticals are a longer lasting type of 'medication', and considering that GSK is in the healthcare business, I cannot help but wonder how this could be incorporated into mandatory healthcare plans like Obamacare[1] - if that ever actually comes into fruition.

In an article from *The National*, the following excerpt describes what GSK sees for this new innovation:

"Glaxo is onboard, saying bioelectronic medicines 'could potentially coax insulin from cells to treat diabetes, regulate food intake to treat obesity and correct balances in smooth muscle tone to treat hypertension and pulmonary diseases' according to the company's website."[2]

Since this is a new technology, the potential risks involved with electroceuticals need further research and a little more time to see how it all manifests. Could it eventually become a mandated prescription for children given the fictional diagnosis of ADD or ADHD? Could it eventually be the new electro-SSRIs of the not-so-distant future? Could this technology be utilized to alter people against their will; or, worse yet, could it be a forced implantation for those who are defiant against tyranny? My

[1] Wikipedia The Free Encyclopedia, 'The Patient Protection and Affordable Care Act', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Patient_Protection_and_Affordable_Care_Act (accessed 13 Dec. 2012)

[2] Renee Morad, 'Electroceuticals illuminate possibility of a final frontier', *The National,* 21 Jun. 2013, http://www.thenational.ae/business/industry-insights/technology/electroceuticals-illuminate-possibility-of-a-final-frontier (accessed 26 Jul. 2013)

research indicates it also has the potential to be altered for conducting, among other procedures, non-invasive lobotomies - and that is greatly troubling.

However this may pan out, we must not allow this one to be swept away due to other non-essential distractions. It is wise to take note and become knowledgeable in this latest development because it very well could be introduced to a health provider or mandatory healthcare system that affects you. Pharmaceutical companies have been working feverishly to find new ways of making billions in revenue by creating new products to increase the drugged-out masses, and they have a strong hold through lobbyists in government to push their agendas.

Genetically Modified Organisms (GMO)

Definition of *GENETICALLY MODIFIED ORGANISMS*

1. an organism whose genetic characteristics have been altered by the insertion of a modified gene or a gene from another organism using the techniques of genetic engineering

Within the world of conspiracy theories, in what most refer to as the Truth Movement, Genetically Modified Organisms - commonly known as GMOs - have taken their stage high upon the ladder of topics that are heated with debate and conflict. A search on the internet will result in hundreds of thousands of websites, articles, and videos, dedicated to this topic. Amongst those, there are several excellent websites that are either devoted entirely to the GMO topic, or at least make a strong effort to publish the most credible information having to do with the severe environmental and health risks.

Most people who are aware of genetically modified foods usually think only of foods like corn, or perhaps microwave dinners, but of course, GMO is a much more complicated subject because it can be, and is, directly linked to biotechnology, cloning, and even synthetic biology. This is why I consider GMO to be a technology within the construct of Transhumanism, and perhaps during the course of reading this section you will begin to agree.

To begin the discussion, the following statistics will alert you to how wide-spread and insidious this technology has become. In 2012, according to the International Service for the Acquisition of Agri-Biotech Applications (ISAAA), every year, for the past 17 years, the global area of growth of GMO crops has increased

by 6%, or 25 million acres. That means that globally, as of 2012, there are 420 million acres being used for GMO crops[1].

In 2012 worldwide, it was reported that 17.3 million farmers in 28 countries planted GMO crops, and Brazil had the highest growth with an increase of an astonishing 6.3 million hectares. To sum this all up, since the inception of industrialized GMO farming in 1996, the total global accumulated area being used for growing GMO crops exceeds 8.72 billion acres, and that figure continues to increase.

Now that you see how massive this problem is we need to look at how it all began. The concept of acclimating a certain type of crop to different environments, or even creating a hybrid crop through natural means, is nothing new in our civilization. There are some vegetables that are taken for granted now that most will never realize looked a lot different hundreds of years ago. One good example is your standard grocery store carrot, which is indeed the offspring of an ancestral hybrid.

Naturally taking a certain crop and making a hybrid, or altering it slowly to adjust to different climates is an essential aspect of gardening, and through experimentation without the use of chemicals, some great successes can result. So, how did GMO all begin, and why the rush to create this super explosive food industry?

Looking back through history we do not see much that should be considered worrisome about this technology until we reach more recent times. Beginning right around the prehistoric era and moving into the 1900s we find people utilizing yeast and fermentation processes as a means to manipulate foods, as well as the early naturalists experimenting with the creation of hybrids of fruits and vegetables that shared similar traits. A lot

[1] International Service for the Acquisition of Agri-Biotech Applications, 'ISAAA Brief 44-2012: Executive Summary', Global Status of Commercialized Biotech/GM Crops: 2012, http://www.isaaa.org/resources/publications/briefs/44/executivesummary/ (accessed 2 Jul. 2013)

of the produce we eat today descends from those earlier hybrid experiments, centuries ago.

In 1900 in Europe, scientists were beginning to use a new genetic theory demonstrated by *Gregor Mendel*[1], who is sometimes referred to as the 'Father of Modern Genetics'. Mendel's genetic theory was known as 'classic selection' and was designed to manipulate and improve plants. It was this, that began to lay the foundation for what would become the global GMO pandemic.

Between the 1950s and 1970s, many innovations and discoveries were made involving DNA and the ability to manipulate genetics. Then, in 1980, something of great significance occurred: the U.S. Supreme Court ruled in *Diamond vs. Chakrabarty*[2] that genetically altered life-forms could be patented. This ruling allowed the corrupt Exxon Oil Company to patent an oil-eating microorganism. In 1982, one of the worst government agencies, the Food and Drug Administration (FDA), approved the first genetically engineered drug. Finally, in 1986, the first field tests were conducted of genetically engineered tobacco in Belgium[3]. A year later, genetically altered tomatoes and tobacco were tested in the United States, and it all went downhill from there.

So, which direction does this planet take now that this evolution of laboratory created food seems to be leading us? It moves us in droves into a frightening world of dying pollinating bees, devastated top soil, and small farmers being ousted by multinational corporations like Monsanto, Dow, DuPont, and others. It is also causing millions of precious rainforests to be

[1] Bio. True Story, 'Gregor Mendel', A+E Television Networks, LLC., http://www.biography.com/people/gregor-mendel-39282 (accessed 28 Jul. 2013)

[2] Wikipedia The Free Encyclopedia, *'Diamond vs. Chakrabarty',* Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Diamond_v._Chakrabarty (accessed 1 Aug. 2013)

[3] American Public Media, 'History of Genetic Engineering', http://americanradioworks.publicradio.org/features/gmos_india/history.html (accessed 1 Aug. 2013)

slashed and burned; poisoning our drinking water and depleting water supplies; creating toxic pesticides and herbicides; and, threatening us with over consumption, greed, and the literal 'dumbing-down' of all who consume GMO food - whether it is fresh produce, meat, or even sugar.

This is far too large of a topic to expand upon concerning its involvement in the Transhumanism construct, but what must be understood is that these GMO products have an overwhelming amount of devastating effects upon everything that consumes them. The fact that synthetic biology, biotechnology, cloning, and even nanotechnology, is being utilized in the further development of GMO food is nothing short of alarming. Many GMO products like MSG and aspartame (with its many names), as well as melamine, and so many others, have been undeniably proven to cause a myriad of diseases, obesity, and, quite seriously, a loss of intelligence.

In other words, and to put it bluntly, GMO products are creating a 'sub-human' race that is fat, dumb, and sick. Simply look at what people are eating at fast food restaurants; look at the amount and quality of frozen-instant food now available at big box stores like Walmart; go into any public place and take a concerned look at how many people are overweight - and not just slightly, but grossly obese. I know what some are going to say about my comments because I have heard them before, but I must make a strong point of the fact that *this is all being done by design*.

It is all being done through social engineering, and *Edward Bernays*[1] would be proud. He felt that manipulation was necessary in society, of which he regarded as irrational and dangerous. This manipulation is being specifically driven through the price of food and the engineered inflation of the fiat currency. People have actually been mind-controlled into

[1] History is a Weapon, 'Propoganda', Edward Bernays (1928), http://www.historyisaweapon.com/defcon1/bernprop.html (accessed 5 Aug. 2013)

believing that the only choice of food they have is the cheap and instant kind. There was a time not too long ago when I was struggling to survive, but even with a limited income, I found a way to thrive using real organic food, and I know many others who have done so, and continue to prosper using this method.

The GMO agenda is really quite simple: control is the end game. Part of the agenda of Transhumanism is right there in its name: 'trans' means to transform something into something else. This is the process of transforming humans into something different - but not by natural means. It is truly a forced evolution by way of calculated, synthetic technology. This is comparable to boot camp, and since I spent a long time in the military, allow me to explain my reasoning:

The young inexperienced recruits show up for boot camp, each with their own way of thinking. The Drill Instructor has the task of breaking down these recruits to their very core, mentally and physically. Once that has been accomplished, the Drill Instructor will mold them into the person the military intend them to be. Eating all of this GMO toxic waste is a form of unconscious boot camp and it is altering, though slowly, the individual, so that eventually each person looks the same, acts the same, and craves the same crappy food. It is only then that those who are the architects behind the Transhumanism agenda can implement further goals and receive little to no resistance by a fat, dumb, and *sick* sub-human race.

Human Genomics - The Human Genome Project (HGP)

Definition of *GENOMICS*

1. a branch of biotechnology concerned with applying the techniques of genetics and molecular biology to the genetic mapping and DNA sequencing of sets of genes or the complete genomes of selected organisms, with organizing the results in databases, and with applications of the data (as in medicine or biology)

With all my research into the world of genetics, nothing has had more of an impact for biotechnology and synthetic biology as the Human Genome Project[1] has provided. It amazes me that this project, which has been the largest of its kind worldwide, is known only by quite a small amount of the population. It is credited in the related science communities for being the catalyst in much of the genetic research and development happening today. I will get more detailed about the HGP later, but for now let us see how this all evolved.

Looking back again into ancient history, we can clearly see that although past civilizations were not aware, as far as we know, of DNA and the genetic code of humans, plants and animals, they understood over time that by breeding similar species they could produce a more superior breed. This was done with cattle, corn, and also with humans. But it would take tens of thousands of years before modern science would evolve into the microcosmic world of genetics we know today.

[1] National Human Genome Research Institute, ' All About The Human Genome Project (HGP)', National Institutes of Health, U.S. Department of Health and Human Services, http://www.genome.gov/10001772 (accessed 5 Jun. 2013)

A sea change occurred about 200 years ago when French Physician, *Maupertuis*[1], recognized that polydactyly (meaning, more than five fingers) was passed through the generations of a family. This was a founding understanding that there was a certain architecture to humans that was carried from parents to children, and caused the next generation to have similarities that were not necessarily by chance.

In the early 19th century, *John Adams,* a British physician, made quite an imaginative and insightful conclusion with his observation of genetics. He discovered that even with two parents appearing to be 'quite normal in health', their offspring could still develop disease or abnormalities. Yet, of all the children he observed with 'normal' parents, it was only a small percentage of the children who carried an abnormal trait not seen in the older generations. Adams' work certainly created a spark in the scientific community, but it would be a mathematician who would later lay the foundation for genetic research.

As introduced briefly in the previous section, the 'Father of Modern Genetics', *Gregor Mendel*, a mathematician-monk born in Austria in 1822, discovered the basic principles of heredity through his experiments of cross breeding certain peas, whilst working at the monastery's garden. He concluded through his experiments that inheritance of certain traits in the pea plants do follow a pattern of sequences that are particular for the two species being cross bred. It was Mendel's work that led to modern day genetic sciences and the study of heredity. A multitude of scientists later on took the work and discoveries of Mendel and continued paving the road to the modern science of genetics we see today.

[1] George Cahill, 'A Brief History of the Human Genome Project', This is chapter 1 from: Gert, Bernard et al. 1996. 'Morality and the New Genetics: A Guide for Students and Health Care Providers.'. Boston, MA: Jones and Bartlett, Publishers. http://www.dartmouth.edu/~cbbc/courses/bio4/bio4-1997/16-HumanGenome.html (accessed 5 Jun. 2013)

The 20th century is when genetic research hit an entirely new level, and it travelled at the speed of light in its evolution. One of the pinnacle moments for this science happened in 1946 when the Atomic Energy Act[1] provided the charter to initiate research and development involving the utilization of fissionable, as well as radioactive materials for medical, health and biological purposes. It was then enhanced later with the Atomic Energy Act of 1954[2], which was authorized to 'conduct research on the biologic effects of ionizing radiation.' One might say that both these Acts could be given some credit for the influence of some of the work we see in biotechnology and synthetic biology, since both require genetics based science.

Fast forwarding to 1986, we begin to see the manifestation of the Human Genome Project, when the United States Department of Energy (DoE)[3] held a conference in Santa Fe, New Mexico. Following the conference, the Office of Health and Environmental Research, which is under the DoE, announced the Human Genome Initiative. An initial budget of $5.3 million for the pilot projects began at the DoE national laboratories. The following year the U.S. Congress authorized and recommended that the Health and Environmental Research Advisory Committee begin a 15 year study involving science and technology to map and sequence the human genome. Finally, in 1990, the Human Genome Project began, and became the world's largest genetic sequencing project ever embarked upon.

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[1] Atomic Archive, 'Atomic Energy Act of 1946', Public Law 585 – 79th Congress, Chapter 724 – 2D Session, S. 1717, http://www.atomicarchive.com/Docs/Deterrence/AtomicEnergyAct.shtml (accessed 17 Apr. 2013)

[2] Nuclear Files, 'The Atomic Energy Act of 1954', Nuclear Age Peace Foundation, http://www.nuclearfiles.org/menu/library/treaties/atomic-energy-act/trty_atomic-energy-act_1954-08-30.htm (accessed 17 Apr. 2013)

[3] Ari Patrinos, Ph.D., Daniel Drell, Ph.D., '*The Human Genome Project: Sequencing the Future*', Oak Ridge National Laboratory, http://web.ornl.gov/sci/techresources/Human_Genome/publicat/jmmbbag.pdf (accessed 15 Apr. 2013)

Seems like a good idea, right? Well, as always, there are pros and cons to this project, and the science that revolves around it. How many of you are aware of Eugenics[1]? Eugenics is really more of a *gentle way of describing genocide* by means of science. It has a whole separate history from human genomics, and I highly recommend looking into the topic, starting with the work of *Sir Francis Galton*[2], the website: eugenics.net[3], and the American Eugenics Movement.

To be brief, the process of eugenics involves the idea of *breeding out* certain abnormalities of certain races so as to create a 'purer' race of human, and has been utilized to prevent interracial breeding. Quite literally, it has the air of supremacist ideologies involved in its goals. The Human Genome Project has only given those that support eugenics more fire power, and has also opened up a dangerous movement by certain companies and privately owned laboratories to initiate filing patents of certain human and synthetic genes.

The one entity that has, for the past few years, been on the forefront of making these patents possible is Myriad Genetics[4]. Their fight has gone all the way to the U.S. Supreme Court, but it was recently ruled - for now - that human genes cannot be patented because *"products of nature cannot be treated as human-made inventions. [...]"*[5] This is great news for as long as it holds fast, but no ruling has been made in regards to synthetic genes. The argument by Myriad Genetics was that cancer research specifically involving two genes identified as BRCA1 and BRCA2 were responsible for mutations linked to breast and

[1] Cold Spring Harbor Laboratory, 'Image Archive on the American Eugenics Movement', http://www.eugenicsarchive.org/eugenics/ (accessed 10 May 2013)

[2] The Galton Institute, 'About', http://www.galtoninstitute.org.uk/about.htm (accessed 10 May 2013)

[3] Future Generations, http://www.eugenics.net/ (accessed 10 May 2013)

[4] Myriad Genetics, http://www.myriad.com/ (accessed 15 Feb. 2013)

[5] Genomics Law Report, 'Myriad Gene Patent Litigation', A Law Publication of the law firm Robinson, Bradshaw & Hinson, http://www.genomicslawreport.com/index.php/category/badges/myriad-gene-patent-litigation/ (accessed 24 Jun. 2013)

ovarian cancer. Their research and development involving these genes somehow made the company feel like they had 'intellectual property' rights to them.

Over 100,000 human genes have been mapped out, which creates a future possibility for over 100,000 patent submissions, and an equal, or greater number, of synthetic gene patents to be submitted to patent offices the world over. This would be carte blanche to the biotech and synthetic biology industries. Consider the following scenario, which will highlight the significance of this:

You become unwell, and after testing, it is discovered that you have an abnormality, or a disease that is directly related to a gene in your DNA sequence. You have two options available to control or cure the problem, and you decide to take the natural homeopathic route first (as opposed to the synthetic), and begin treatment. Due to universal health care mandates, your doctor keeps all records of your treatment in a national database. Partway through treatment, a large biotech company receives a red flag message in their patent protection division, and immediately contacts your doctor to inform him that he is in violation of working on that gene that they own the rights to; and, because of this, the patient must adhere to their medical protocols.

An opposing scenario might be that your doctor is already aware of the gene specific patent, and has to defer you to the company that owns it for medical treatment. Since they are the sole patent holder, they can treat, and charge, the patient however they deem fit. This may seem like an outlandish possibility, but I think it is quite realistic, and very possibly could become reality if things continue to progress as they are. One U.S. Supreme Court ruling is not a final resolution. Eventually, new judges will take over, and the power of the corporation lobbyists and high powered lawyers will strike again.

The possibilities of what discoveries were made as a result of the Human Genome Project are truly infinite. Considering how surprisingly vast and influential it has been in the sciences of genetics, so few are aware of it - and that is quite unfortunate. Knowledge is power, and people need to realize that this project holds within it a large Pandora's Box. Human genome mapping as a way to find methods for curing unfortunate defects could be of good use for homeopathic doctors and others who research natural remedies, but unfortunately, this is currently not the case. The majority of the research being done is through the biotech and synthetic biology industries, and, of course, major corporations looking for more pharmaceutical drugs to sell for huge profits at the expense of the population of this planet receiving adverse effects psychologically, physically, and monetarily.

This is one topic that needs further research by most people, especially if you have any kind of disease or abnormality that is being treated through mainstream medical science. To understand how this is progressing by way of human genomics further research is essential.

Nanotechnology

Definition of *NANOTECHNOLOGY*

1. the science of manipulating materials on an atomic or molecular scale, especially to build microscopic devices (as robots)

Nanotechnology is, in my opinion, one of the titans of Transhumanism because it has such a wide variety of uses and is utilized in just about all the other technologies of Transhumanism, from RFID implants to synthetic biology. Nanotechnology was one of the first subjects in The Construct I began to research, and it is one that truly opens a world that some would believe only exists in the books and movies of science fiction - but what you will read in the pages that follow is absolute reality. It spans across greatly diverse usages, from dissolvable microchips[1], to nano carbon tubes[2], and on to Claytronics[3]. There is such global interest in this technology that it can be found as focus areas by multinational corporations, universities, private laboratories, the medical/pharmaceutical industry, government agencies, the military, and, many more.

Mainstream history will tell you that this technology has its origins in the 20th century with the ideas of a few well known individuals. Could this really be true? Is there no evidence of

[1] ScienceDaily, 'Implantable Silk Optics Multi-Task in Body: Dissolvable Micro-Mirrors Enhance Imaging, Administer Heat, Deliver and Monitor Drugs', (28 Nov. 2012) ScienceDaily, LLC., http://www.sciencedaily.com/releases/2012/11/121128143939.htm (accessed 22 Jun. 2013)

[2] Nanocyl: The Carbon Nanotube Specialist, 'Carbon Nanotubes', http://www.nanocyl.com/CNT-Expertise-Centre/Carbon-Nanotubes (accessed 1 Aug. 2012)

[3] Aaron Saenz, 'Programmable Matter: Claytronics or Gershenfeld', *SingularityHUB* (23 Jul. 2009) http://singularityhub.com/2009/07/23/claytronics-or-gershenfeld-why-youll-be-able-to-make-almost-anything/ (accessed 1 Jun. 2013)

nanotechnology having origins that date back further? It may have not been quite the nanotechnology we recognize today, but a little digging will reveal that a type of micro-technology certainly was a precursor.

Originally believing this to be a fairly new concept myself, I found that ancient civilizations had amazing advanced technologies that had become lost in time, and I described some of those in earlier pages, but it was not until an archaeologist from New Zealand opened my eyes to something incredible.

I first had the honor of speaking with Jonathan Gray[1] several years ago, and found his enthusiasm and energy refreshingly pleasant. Jonathan is a real life modern day Indiana Jones and has been on some of the most thrilling archaeological adventures I have known. I encourage all readers to have a look at his work found at beforeus.com.

Jonathan and I spoke in depth on a number of long occasions, and during one conversation he shared something that truly had me fascinated: this captivating discussion was on the topic of nanotechnology. What he shared with me was mentioned briefly at the start of this book, but to expand on it here, I will quote directly from his website where an image of the following can be found:

"MICRO TECHNOLOGY: 40 feet underground in Russia's Ural region, gold prospectors are finding ANCIENT, man-made, spiral-shaped artifacts. These microscopically TINY artifacts are the product of some inexplicable and highly advanced technology. They resemble control elements used in micro-miniature devices in our latest technology 'nano-machines' [...]"

Whilst we cannot be precisely certain how old these artifacts are, with our limited knowledge of geology and archaeology, it

[1] Archaeology Answers, Jonathan Gray, http://www.beforeus.com/

is logical to deduce that an item found 40 feet underground is most likely *quite* ancient. This little snippet of information was the catalyst that had me searching for more clues into the older origins of nanotechnology. In a more distant past, civilizations were honing their quite amazing skills in such areas as art, pottery, mechanics, and metallurgy, but their products were becoming more extravagant and detailed as skills evolved.

Nanotechnology can also be referred to in some cases as nanostructured materials, and we can see this in antiquity many times.

One amazing example from the 4th century is the *Lycurgus Cup*[1] that originated from Rome during the Roman Empire. The cup is made primarily using a 'dichroic' material, which is a glass that contains colloidal gold and silver in minutely ground proportions. The color of the glass is an opaque green, that, when held to the light, shines a brilliant translucent red. Being that the gold and silver is milled to an almost micro powdered dust, the effect it creates for the naked eye gives it a sort of mystical appearance, with no visibly explainable reason to suggest the color change, or the inclusion of other metals.

This nanostructure method used in art and other desired trades continued to evolve throughout the world from the 9th to the 17th centuries where we saw it utilized to create a glowing 'lustre' in glazed ceramics[2]. This was done through a process of using metallic nanoparticles.

European cathedrals between the 6th and 15th centuries had rich and colorful stained glass windows, with the rich color possible through the process of utilizing gold chloride, and

[1] Ian Freestone et al., 'The Lycurgus Cup- A Roman Nanotechnology', *Gold Bulletin* 40/4 (2007) http://arne-lueker.de/Objects/work/Surface%20Plamons/lycurgus.pdf (accessed 22 Jun. 2013)

[2] K. Kris Hirst 'Lustreware: Medieval Islamic Pottery Technique', *About.com*, Archaeology, http://archaeology.about.com/od/lterms/qt/lustreware.htm (accessed 19 Jun. 2013)

other metallics in the form of nanoparticles[1].

It gets increasingly interesting when we hear about swords known as 'Damascus Saber Blades'[2] (13th - 18th centuries) containing carbon nanotubes and cementite nanowires, and yet, science tells us that carbon tubes were only created within the last decade. A quick internet search on these swords will take you to images of one sample being inspected under an electron microscope where you can see the nanotechnology for yourself. The sword, and all I mentioned, are just some examples of how the concept of making things on a very small scale for the purposes of something larger is not new. The technology had simply been lost or forgotten, only to resurface once again on December 29th, 1959.

On the aforementioned date at the California Institute of Technology, home of NASA's Jet Propulsion Laboratory (JPL), a meeting had taken place for the American Physical Society. A talk was given by Physicist *Richard Feynman*[3], entitled, *There's Plenty of Room at the Bottom*[4]. What Feynman was discussing, as quoted from the Nanotechnology Research Foundation[5] was *"a process by which the ability to manipulate individual atoms and molecules might be developed, using one set of precise*

[1] Chi Chan, 'From Nanotech to Nanoscience', *Chemical Heritage Magazine* Vol. 26, No. 2 (Summer 2008) Chemical Heritage Foundation, http://www.chemheritage.org/discover/media/magazine/articles/26-2-from-nanotech-to-nanoscience.aspx (accessed 20 Jun. 2013)

[2] Henry Fountain, 'Antique Nanotubes', *The New York Times*, 28 Nov. 2006, http://www.nytimes.com/2006/11/28/science/28observ.html?scp=1&sq=Antique+Nanotubes&st=nyt&_r=0 (accessed 22 Jun. 2013)

[3] Wikipedia The Free Encyclopedia, 'Richard Feynman', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Richard_Feynman (accessed 21 Jun. 2013)

[4] Richard P. Feynman, '*There's Plenty of Room at the Bottom*', Transcript of talk given the annual meeting of the American Physical Society (29 Dec. 1959) http://www.zyvex.com/nanotech/feynman.html (accessed 21 Jun. 2013)

[5] As of 25 Jul. 2013 according to GoDaddy.com, LLC. The domain for the Nanotechnology Research Foundation has been expired due to pending renewal or deletion. http://nanotechnologyresearchfoundation.org/?nr=0 (first accessed the NRF on 1 Aug. 2012)

tools to build and operate another proportionally smaller set, [and] so on down to the needed scale. [...]"

Basically, Feynman was discussing the idea of having small machines build nano-sized machines with exact precision.

This one talk sparked a global evolutionary race in what would later be known as 'nanotechnology'. The term itself for this idea was not in use until 1974, when Tokyo Science University Professor, *Norio Taniguchi*[1] explained 'nano-technology' in a paper he wrote about ion-sputter machining. Taniguchi described this new term as consisting mainly of the *"processing of, separation, consolidation, and deformation of materials by one atom or by one molecule [...]"* And, thus, the term was born.

The next modern founder who had influence in the direction nanotechnology would take, was *Dr. K. Eric Drexler*[2], who, prior to Taniguchi, originated the concepts of molecular nanotechnology at the Massachusetts Institute of Technology (MIT) in 1977. Drexler would go on to write many papers and be responsible for taking the technology to whole new levels of research and development.

These are only a few people and examples of the origins of nanotechnology, but it is far more detailed and involved than what has been mentioned briefly here. Whilst the importance of the history of the subject is necessary to include, what is happening now in the field, and where it is going, is most crucial for the reader to understand.

As stated already, nanotechnology has reached into the world of every sort of concept or technology that can be incorporated with it. DARPA, FESTO, the U.S. agencies of the Center for

[1] Wikipedia The Free Encyclopedia, 'Norio Taniguchi', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Norio_Taniguchi (accessed 1 Aug. 2013)

[2] E-drexler.com, 'K. Eric Drexler', Biography, http://e-drexler.com/p/idx04/00/0404drexlerBioCV.html (accessed 3 Aug. 2012)

Disease Control (CDC), and the Food and Drug Administration (FDA), as well as the military, plus more, *all* want to reach new levels into how it can be used. It must be stated clearly that this technology has dangerous potential when the CDC, FDA and DARPA have interest in it. It is, most of the time, *not* for the benefit of the general public: and their track records prove it.

Nanotechnology is of such great interest to the U.S. Government, that they actually created an initiative considered worldwide as *the* most influential: and it is called the *National Nanotechnology Initiative (NNI)*[1]. As expected, and unsurprisingly, the NNI is no small objective by the U.S. Government. It was launched in 2000 for, 'setting the pace of innovation worldwide', and started out with the cooperation of eight U.S. agencies, but now consists of the individual and cooperative nanotechnology-related activities of an unprecedented 27 federal agencies covering a huge range of activities, research and development, and regulatory roles and responsibilities.

Those figures speak volumes about how much interest just one country takes in this technology. It goes further, though, as out of the 27 federal agencies whom are part of this mega-cooperation, 15 of them have their own budget and funds allotted for their participation in this interagency. The rest mainly receive funds and an annual budget through the National Science and Technology Council.

For those who reside in the United States alone, you might be taken aback by the exhaustive list below of the federal agencies involved in the NNI. Ask yourself why these entities and their objectives include an interest in nanotechnology.

The following information comes from the *nano.gov* website:[2]

[1] National Nanotechnology Initiative (NNI) http://www.nano.gov/ (accessed 9 May 2013)

[2] National nanotechnology Initiative (NNI), 'NSET's Participating Federal Partners', http://www.nano.gov/partners (accessed 9 May 2013)

1. **Agricultural Research Service**
   (U.S. Department of Agriculture's chief scientific in-house research agency)
   Objective: Finding solutions to agricultural problems.

2. **Bureau of Industry and Security, Department of Commerce**
   Objective: Shares information about national security needs and challenges and exercises its statutory data collection authority to support the NNI.

3. **Consumer Product Safety Commission**
   Objective: Examine potential health effects of nano-enabled consumer products.

4. **Department of Defense**
   Objective: Considering the potential of how nanotechnology can contribute to the warfighting capabilities of the military.

5. **Department of Education**
   Objective: Involved in various educational aspects of the NNI.

6. **Department of Energy**
   Objective: Considering the possibilities nanoscience and nanotechnology could be applied to regarding the problems of the nation's energy crisis and 'climate change' challenges.

7. **Department of Homeland Security**
   Objective: Interested in how nanotechnology can improve homeland security.

8. **Department of Justice/National Institute of Justice**
   Objective: The NIJ awards projects, specifically related to the field of nanotechnology, at state and local law

enforcement levels to meet challenges of Justice and Crime.

9. **Department of State**
Objective: To participate with the NNI in order to support foreign policy objectives, protect national security, and advance economic interests.

10. **Department of Transportation**
(incl. the Federal Highway Administration FHWA)
Objective: The FHWA sees potential in nanotechnology to help solve long-term highway and transportation research needs in support of the DOT's strategic goals.

11. **Department of Treasury**
Objective: Seeking to promote economic growth and stability and to ensure the safety, soundness, and security of the U.S. financial systems.

12. **Department of Labor/Occupational Safety and Health Administration (OSHA)**
Objective: Playing an integral role in nanotechnology by protecting the nation's workforce.

13. **Environmental Protection Agency**
Objective: To ensure how nanotechnology can be incorporated into the nation's environmental science, research, education, and assessment in efforts related to the 'protection' of the public and environment.

14. **Food and Drug Administration**
Objective: To monitor and 'regulate' how nanotechnology is utilized under their area of responsibility.

15. **National Aeronautics and Space Administration**
Objective: To cooperate in research related to their mission in future space exploration, scientific discovery, and aeronautics research.

16. **National Cancer Institute**
Objective: Allowing researchers to use nanotechnology to study cancer and developing technology to enable early detection as well as develop novel therapies.

17. **National Institute for Occupational Safety and Health (NIOSH)**
Objective: NIOSH is the leading Federal agency conducting research and providing guidance on the occupational safety and health implications and applications of nanotechnology.

18. **National Institute of Standards and Technology (part of Dept. of Commerce)**
Objective: NIST nanotechnology research develops measurements, standards, and data crucial to a wide range of industries and Federal agencies. The NIST also created the Center for Nanoscale Science and Technology (CNST) to help move nanotechnology from the laboratory to the marketplace.

19. **National Institutes of Health**
Objective: Help NIH advance opportunities to develop novel diagnostics and therapeutics, as well as tools enabling research at cellular and sub-cellular levels.

20. **National Science Foundation**
Objective: NSF supports upstream research and education in all areas of nanoscale science and engineering, leading to a flexible infrastructure and educational pipeline at the national level. It also advances nanotechnology innovation through a variety of translational research programs and by partnering with industry, states, and other agencies.

21. **Nuclear Regulatory Commission**
Objective: Involved in how nanotechnology can be incorporated in the nuclear energy industry.

22. U.S. Department of Agriculture, Forest Service

Objective: Nanotechnology offers an efficient and effective means to capitalize on a major national asset to make forest-derived materials the materials of choice for the 21st century. FS R&D is developing internal nanotechnology research capacities to effectively partner with industry, academia, and other federal entities, and developing the precompetitive science and technology critical to the economic use of nanotechnology-enabled, forest-based materials and products.

23. U.S. Department of Agriculture, National Institute of Food and Agriculture

Objective: NIFA's nanoscale science and nanotechnology research has focused its investment on detection and intervention technologies for enhancing food safety and agricultural biosecurity; effective and safe delivery of bioactives in functional foods for improving human health and wellness; and, product traceability, identity preservation, and tracking, to embrace the continuous advancement of information technology for better decision making through the Agriculture and Food Research Initiative (AFRI), NIFA's flagship competitive grants program.

24. U.S. Geological Survey

Objective: USGS nanotechnology research involves the effects of nanoparticles at various levels of biological organization, from the molecular to ecosystem level.

25. U.S. Intelligence Community

Objective: (you are going to love this) The Office of the Director of National Intelligence has created an organization that will increase the speed of technical developments and infuse synergy into all 16 intelligence agencies so they can recapture their ability to surprise adversaries. The Intelligence Advanced

Research Projects Activity (IARPA) is modeled after the military's Defense Advanced Research Projects Agency (DARPA). Nanotechnology is a key area of research focus. For intelligence personnel, making devices very, very small, concealable, and secure, is an imperative.

26. U.S. Patent and Trade Office

Objective: The USPTO has made several improvements to its processes to keep pace with the rapid advances being made in this area. Notably, the USPTO adopted the NNI definition of nanotechnology in its development of the first detailed, patent-related nanotechnology classification hierarchy of any major intellectual property office in the world.

27. United States International Trade Commission

Objective: The USITC serves as a federal resource where trade data and other trade policy-related information are gathered and analyzed. The information and analysis are provided to the President, the Office of the United States Trade Representative, and the Congress, to contribute to the development of sound and informed U.S. trade policy.

So, there you have it: the entire known infrastructure of the largest government agency coalition in the world working on one technology: nanotechnology. However, the NNI failed to mention the one entity that I believe has *major* influence within the ranks of all their agencies - and that would, without a doubt, be DARPA.

The United States, of course, is not the only country who has shown interest, and plays an active role in the world of nanotechnology. Many countries, some of which include Russia India, UK, Germany, China, Japan, and Australia, have institutes and government entities looking into the prospects of it as well.

In Australia alone, there is the Australian Nanotechnology Network[1] and the Australian Research Council[2], which not only deals with nanotechnology, but includes other Transhumanism technologies as well, and is made up of six major research facilities across the country. It is constantly expanding and evolving rapidly, and one only needs to look up the latest news on the matter to see just about daily that there is something new to read about that is currently being developed.

The diversity of innovations are so vast that it is almost difficult to select just a few to discuss; especially considering that most other Transhumanism technologies in some form utilize them as well. There is one, however, that is worth mentioning: it is quite bizarre, and could almost be seen as coming straight out of a science fiction movie. The technology is called 'Claytronics', and is defined as programmable matter made up of millions of microprocessors, known as 'catoms'[3] (Claytronic Atoms), that can take the three dimensional shape of anything they are programmed for. The catoms bond electro-statically so that they can mold into different shapes according to the software they are programmed with.

That is the simplest and most basic definition, but according to the team members who work in the Claytronics Project at Carnegie Mellon University[4], its creation is explained as follows:

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[1] Australian Nanotechnology Network, Australian Government; Department of Industry, Innovation, Science, Research and Tertiary Education, http://www.ausnano.net/ (accessed 9 May 2013)

[2] Australian Research Council: Centre of Excellence for Electromaterials Science, 'The Electromaterials Program', http://www.electromaterials.edu.au/researchprograms/UOW118619 (accessed 9 May 2013)

[3] Agneev Guin, 'Programmable Matter – Claytronics', SRM University, Department of Instrumentation and Control Engineering, Presented at the 58th International Instrumentation Symposium (4-8 Jun. 2012 San Diego, California) http://www.isa.org/filestore/microsites/TP12IIS019.pdf (accessed 1 Jun. 2013)

[4] Carnegie Mellon University Claytronics Project, http://www.cs.cmu.edu/~claytronics/ (accessed 1 Jun. 2013)

"Creation of claytronics technology is the bold objective of collaborative research between Carnegie Mellon and Intel, which combines nano-robotics and large-scale computing to create synthetic reality, a revolutionary, 3-dimensional display of information. The vision behind this research is to provide users with tangible forms of electronic information that express the appearance and actions of original sources. The objects created from programmable matter will be scalable to life size or larger. They will be likewise reducible in scale. Such objects will be capable of continuous, 3-D motion. Representations in programmable matter will offer to the end-user an experience that is indistinguishable from reality. Claytronic representations will seem so real that users will experience the impression that they are dealing with the original object. [...]"

'Indistinguishable from reality'? That is almost like putting the concept of virtual reality, literally, into the palm of your hand. In a synthetic reality, a term used by Claytronics, our object of joy and dependency will become simply less real and less present.

Besides intelligent robots and nano-swarms[1], Claytronics are eager to find a way to utilize this technology to create food, a concept of which we have witnessed in the science fiction series, *Star Trek*[2]. That is frightening to think about, particularly when we can see this coming to fruition without too much of a glitch, since Claytronics is also an integral part of the 3-D Printing technology most recently impressed upon the public. Some within the science and Transhumanism communities are debating whether Claytronics is a better option than nanotechnology, while others claim it cannot even be

[1] Aaron Saenz, 'Flying Robotic Swarm of Nano Quadrotors gets Millions of Views, New Company', *SingularityHUB*, 5 Feb. 2012, http://singularityhub.com/2012/02/05/flying-robotic-swarm-of-nano-quadrotors-gets-millions-of-views-new-company/ (accessed 10 Feb. 2012)

[2] Wikipedia The Free Encyclopedia, 'Replicator (Star Trek)', Wikimedia, Inc., https://en.wikipedia.org/wiki/Replicator_%28Star_Trek%29 (accessed 26 Jul. 2013)

categorized under that field, but both arguments are, without a doubt, still ignorant.

The whole base structure of a Claytronics mechanism is the Claytronic Atom, and the two leaders in this research - Carnegie Mellon and MIT - refer to nanotechnology when discussing it. Could you imagine this technology getting into the hands of a government intelligence agency, or the military? It has the real possibility of being used to create a small automated drone, perhaps the size of a toy car[1], which could then morph into a thin sheet to slide under a door, and morph once more into some kind of micro-drone to watch a person of interest. Does this sound too preposterous?

A little reading on the subject of morphing atoms will lead you to discover that the military is already interested in this form of nanotechnology, and are working on a project they hope to be completed and have in full use by 2020[2]. Since 2004, The U.S. Air Force Research Lab, in cooperation with Carnegie Mellon University and Intel Corporation, have been working on Claytronics with Associate Professor *Seth Goldstein*[3] at CMU; and the military's interest is in the capability of it functioning as a 'Shape-shifting Robotic Swarm with 3-D replica technology'[4]. After watching some demonstration videos on how it works, I must be adamant in saying that they have indeed made this

[1] Carnegie Mellon University Claytronics Project Concept Toy Car, http://www.cs.cmu.edu/%7Eclaytronics/movies/carDesign_12_vo_H264.mov (accessed 1 Jun. 2013)

[2] Richard Silbergilitt et al., 'The Global Technology Revolution 2020, In-Depth Analysis: Bio/Nano/Information Trends, Drivers, Barriers, and Social Implications', Technical Report, RAND Corporation; National Security Research Division (2006) Prepared for the National Intelligence Council, http://www.rand.org/content/dam/rand/pubs/technical_reports/2006/RAND_TR303.pdf (accessed 28 Jul. 2013)

[3] Carnegie Mellon University, 'Seth Copen Goldstein', http://www.cs.cmu.edu/~seth/ (accessed 3 Jun. 2013)

[4] Bleahy, 'Exclusive: Interview with Claytronics Project Lead', *G4 Media, LLC.,* 4 Feb. 2008, http://www.g4tv.com/thefeed/blog/post/682549/exclusive-interview-with-claytronics-project-lead/ (accessed 8 Jun. 2013)

possible. 2020 is not far away, so we must keep an eye on the progress of this technology.

From the synthetic reality of Claytronics, to nano-robotic drones, and even pharmaceutical pills that will alert your government controlled medical insurance if you are not complying with your treatment, the possibilities are endless with this technology. It can be difficult to keep up with all that is published on the subject, but again, we must remember that if the government, intelligence community, and especially the military, have taken enough interest to fund projects to further research and develop them, then we must be cautious about the motives and agendas being kept from us.

Clearly, this technology is no longer a *thing* of science fiction, but rather, a creeping reality entering the many aspects of our daily lives, even down to the places we vacation. Most of the bigger names in classy hotel accommodation have contracted with a company who has designed and manufactured a new technology, called RFID, which is derived from nanotechnology. This comes in the form of a washable RFID chip that is sewn into bathrobes, towels, and other items. In later pages, we will discuss these chips in further depth.

Without the need to reiterate why, in this field of rapidly evolving technology we should *not* be forced to live in a world of constant monitoring, paranoia, and concern about nano-machines behind every corner. We must remain educated, because with the way things are accelerating, we might be approaching a time when knowledge is our only tool for survival.

Radio-Frequency Identification (RFID)

Definition of *RADIO-FREQUENCY IDENTIFICATION*

1. RFID, as a device, is the wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects. The tags contain electronically stored information.

RFID technology has been used in various forms for many years. During my time in the military I saw this technology used for many reasons, in both nano and large scale devices. As an end-user, it was just a convenient tool to get the mission accomplished if the device would be beneficial. It was not until many years later that I had learned that the technology had been expanded and was reaching into the general public. Curious to discover how it might be used, I dug deeper, and the more I uncovered, the further data I collected showing that without a doubt this technology was becoming a dangerous tool for control, and monitoring the innocent.

The conventional RFID implant device[1] that became a hot topic within the Truth Movement of recent years, is not that new of a technology. On the greater scale, though, this technology, in a tangible form, came into use for ongoing development about 70 years ago, although, the driving force behind RFID technology goes back much further than most might guess.

[1] ImplantedMicroChip.com, 'About MicroChip', http://www.implantedmicrochip.com/About_MicroChip.html (accessed 5 Aug. 2012)

In the 1st century B.C., the Chinese were said to be the first to observe and use magnetic fields in the form of lodestones[1]. It was this magnetic field that would eventually be called 'electromagnetic energy' and it is this energy that makes an RFID device functional. Between the 1600s and 1800s, there was a massive growth of scientists and inventors working with electricity and magnetism, observing how it worked, and what benefits it might provide. Many, during these two centuries, made remarkable breakthroughs with electromagnetic energy and the theories were abundant. Yet, it would take almost 150 years before something unique would take place that would be the pinnacle point of how this energy could be used in what would eventually be, what we today call RFID.

As these sorts of technologies go, sometimes it is difficult to say if there was one person who can be singled out as the founding innovator or person of inspiration deserving of the credit. I have found two people that, depending on which source you research, seem to be applicable of the status. In 1945, *Leon Theremin* had invented an espionage tool for the Soviet Union, a device which was capable of retransmitting incident radio waves with audio information[2].

Although nowadays this would seem like a primitive device, Theremin's device was quite effective, small, and innovative for its time. It was, and still is, considered a covert listening device, which, although not an identification tag as RFID classifications go, by many, is considered the predecessor of RFID technology. This is because Theremin's device worked on similar principles in regards to being a more passive device, and being activated and energized by an outside source, which is how RFIDs function.

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[1] Dr. Jeremy Landt, 'Shrouds of Time: The history of RFID', *AMI Publication,* AMI, Inc., 1 Oct. 2001, http://www.transcore.com/pdf/AIM%20shrouds_of_time.pdf (accessed 21 Jun. 2013)

[2] Wikipedia The Free Encyclopedia, 'Radio-frequency identification', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Radio-frequency_identification (accessed 5 Aug. 2012)

Other sources like to refer to and credit *Harry Stockman*[1] for being the inspiration of the RFID technology. In October of 1948, Stockman wrote the paper, *Communication by Means of Reflected Power*[2], which explored the ideas behind RFID technology. He stated that:

"Evidently, considerable research and development work has to be done before the remaining basic problems in reflected-power communication are solved, and before the field of useful applications is explored. [...]"

Even though Stockman's paper was held in high regard by members of the scientific community, his vision would not manifest for another 30 years.

On January 23rd, 1973, *Mario Cardullo* was awarded a patent for his passive radio transponder with memory device[3]. Cardullo is credited for inventing the first true ancestor of the modern RFID device. He first demonstrated his device in 1971 to the New York Port Authority, and other personnel interested in its possible uses. The device was passive, powered by an interrogating signal, and consisted of a transponder with 16 bits of memory to be utilized as a toll device.

In Cardullo's patent, he covered the use of RF (Radio Frequencies), light, and sound, as transmission media. The original business plan he had presented to investors in 1969 was to show how his device could be used in transportation (automotive vehicle identification, automatic toll system, electronic license plate, electronic manifest, vehicle routing,

[1] Owen Jones, 'A Short History of RFID', *EzineArticles.com,* SparkNET, http://ezinearticles.com/?A-Short-History-of-RFID&id=4855392 (accessed 22 Jun. 2013)

[2] Harry Stockman, 'Communications by Means of Reflected Power', *Proceedings of the I.R.E. (Including Waves and Electrons Section)* Vol. 36 (1948) The Institute of Radio Engineers, Inc., http://simson.net/ref/1948/stockman.pdf (accessed 12 Aug. 2013)

[3] Bob Violino, 'Genesis of the Versatile RFID Tag', *RFID Journal*, 21 Apr. 2003, http://www.rfidjournal.com/articles/view?392 (accessed 21 Jun. 2013)

vehicle performance monitoring); banking (electronic check book, electronic credit card); security (personnel identification, automatic gates, surveillance); and, medical (identification, patient history). Remember, that was in 1969, and everything he proposed for his device is used today, as well as so much more. Obviously, these investors, as well as the government, agreed with Cardullo's proposal and ran at high speed with it. Today you can find RFIDs in everything from hotel bathrobes to passports, and even medical implants. They are everywhere.

RFID research and development continued to evolve over the next few decades and then reached new heights in the 1990s with what we now know as an RFID tag. Comparable once to a grain of rice, this sort of technology has become a dinosaur compared to the next generation. Currently being developed are washable RFIDs for clothing[1]; dissolvable RFIDs that can be placed on the surface of a brain; and, RFIDs built with nanotechnology that fit into a pharmaceutical pill. It won't be long before even these become outdated.

The implications of such technology can already be witnessed. It is in heavy use by military and intelligence agencies around the world, with - unsurprisingly - the global epicentre of users being government and industry in the United States. And as you might have expected to read, DARPA is indeed playing a big consumer role in the RFID business[2]. There are plans currently being implemented that allow for the research and development of RFID technology that can be incorporated in, quite literally, everything you can imagine; from the shoes you wear to the bullets in your firearm.

I had mentioned earlier that larger chains of hotels are now using washable RFIDs in linen or bathrobes. Not too long ago

[1] Nic Halverson, 'Washable RFID Tags Help Catch Hotel Towel Thieves', *Discovery News,* 6 May 2011, http://news.discovery.com/tech/washable-rfid-tags-help-catch-towel-thieves-110506.htm (accessed 20 Jun 2011)

[2] Sam Churchill, 'Tracking Soldiers, Mapping Relief', *Daily Wireless,* 18 Jul. 2008, http://www.dailywireless.org/2008/07/18/tracking-soldiers/ (accessed Sep. 10 2011)

the BETA testing in actual hotels took place in Honolulu, New York City, and Miami. The two partners that teamed up to develop this RFID are *Linen Tracker*[1] and *Fluensee*[2]. If you are a person who likes to tuck a fluffy hotel towel in your suitcase before checkout, you might need to think twice now because the law will find you.

Those are quite tame compared to other uses being considered, like the previously mentioned digestible nano-RFID. It might be sooner, rather than later, when your government controlled doctor requires you to take trackable oral medicine in pill form - and if you do neglect to swallow it, the RFID within will alert the necessary authority. Other possibilities might include injection with an RFID in a mandated vaccination. If you think this unlikely, you might look closer into the topic, as, using one prime example, an (unconfirmed) estimated 20,000 men and women in the U.S. Military have been injected with RFIDs unbeknownst to them. Whilst the actual figure may be slightly different, the fact that this is occurring remains unchanged.

Those behind the Transhumanism construct have also devised a solution for the whole family that incorporates biometric technology. RFIDs are now being sold online to those who prefer the convenience of undelayed travel, and are even being promoted under package deal terms for the frequent flyer, or gift buyer. This one is the CLEARcard, by *CLEAR*[3]. The sales pitch for the card is insulting, promoting a product that will 'guard your privacy', whilst providing you with seamless and secure travel, as long as your RFID implanted passport is used to identify you. The benefit for cardholders is a faster run through airports, but the real winner is CLEAR, with your fingerprint and iris scans on file.

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[1] Linen Tracker, http://www.linentracker.com/ (accessed 5 Aug. 2012)

[2] Fluensee: RFID-Enabled Asset Management, http://www.fluensee.com/ (accessed 5 Aug. 2012)

[3] Alclear, LLC., 'What is CLEAR', http://clearme.com/what-is-clear (accessed 5 Aug. 2012)

These scenarios are just the tip of this iceberg, but if you are curious about perhaps seeing art imitating life then you should check out a web series called, *H+: The Digital Series*[1]. At the time of writing, the series is still running, and it contains the frightening realism of RFIDs utilized in the daily lives of the populace: a definite realistic science fiction series that is quite profound in relation to this discussion.

As with all sections, this topic could be expanded upon over many more pages, but to be brief, yet thorough, please do have a look at the footnotes I have provided which should assist you in exploring other questions you may have regarding this subject. You would only do yourself a disservice if you do not take a moment to explore them.

[1] H+: The Digital Series, http://hplusdigitalseries.com/ (accessed 17 Dec. 2012)

Robotics (Automata) and Bionics

Definition of *ROBOTICS*

1. technology dealing with the design, construction, and operation of robots in automation

Definition of *AUTOMATA*

1. a machine or control mechanism designed to follow automatically a predetermined sequence of operations or respond to encoded instructions

Definition of *BIONICS*

1. a science concerned with the application of data about the functioning of biological systems to the solution of engineering problems

Robotics and bionics have been mentioned throughout this book in regards to history and current technology, so, to avoid repetition, a more detailed history covering some of the most essential historical moments is required before moving on. Obviously, robotics and bionics play a huge role in the current Military-Industrial Complex's war machine, but more importantly, it is a central point within Transhumanism and the rest of The Construct, so it is important to look back in history to see how it all evolved into what we are dealing with today.

Some of the more notable events in history that were major contributions to the development of robotics started from the sketchbook that belonged to *Leonardo da Vinci (1452 - 1519)*[1],

[1] Leonardo da Vinci: The Complete Works, http://www.leonardoda-vinci.org/ (accessed 12 Jun. 2013)

which was rediscovered in the 1950s. The robot known as 'da Vinci's Knight', or the 'Clockwork Knight' is said to have been displayed at the Court of Milan in 1495[1]. Some historians are unsure about whether the actual 'humanoid automata' was ever built, but what we do know is that when the original sketchbook was rediscovered, the model according to da Vinci's specifications was created, and it worked perfectly with gears, pulleys and cables. The internal components were fitted into a knight's suit of armor, and once engaged, the robotic knight could sit, stand, raise its visor, move its head and wave its arms around. So the recreation of Leonardo's knight proved that he very well could have constructed an original model.

Utilizing clockwork for automata (robotics) is nothing new, but it would seem that it quickly developed into more intricate devices after the da Vinci Knight. In 1737, French inventor, *Jacques Vaucanson (1709 - 1782[2])* created the 'Canard Digérateur', or, 'Digesting Duck', that, once engaged, gave the appearance of being able to eat grain, and then mobilize, and even defecate[3]. The clever part of the inner workings of the duck was that the grain it 'ate' was internally stored in one chamber, and in a second chamber, Vaucanson had pre-stored feces that would be ejected as if the duck was defecating.

Jacques had actually hoped to one day see a duck or another form of automata created that had the ability to consume organic material, and transform and excrete it. Little did the inventor know that it would not be until 2013 that his dream would come true. More on that later.

One more noteworthy robotic invention from the 1700s is that of Austro-Hungarian author and inventor, *Wolfgang von*

[1] Leonardo da Vinci Inventions, 'Robotic Knight', http://www.da-vinci-inventions.com/robotic-knight.aspx (accessed 12 Jun. 2013)

[2] Wikipedia The Free Encyclopedia, 'Jacques de Vaucanson', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Jacques_de_Vaucanson (accessed 29 Jul. 2013)

[3] Wikipedia The Free Encyclopedia, 'Digesting Duck', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Digesting_Duck (accessed 29 Jul. 2013)

Kempelen (1734 - 1804)[1], who created a number of innovative devices that would later fuel the Transhumanism technologies. One sticks out more than the others, and that was his automata simply called 'The Turk'. The Turk, also known as the 'Mechanical Turk', and, 'Automation Chess Player', was indeed a renaissance period robotic playmate[2].

The interesting thing about this device is its similarities to the Oracle statues of ancient Egypt. The Turk was a maple wood box with a mannequin dressed in a turban and cloak just behind it in a position to play a game of Chess, which it would play with a human opponent. The device was a huge hit until it burned in a fire in 1854, however, in the early 1820s, it had been discovered to be a hoax. The box portion of the device was hollow and had complicated levers and pulleys so that a skilled operator could hide inside to play the game. Although this was not an actual independent functioning robotic device, consider, still, its relation to what we see now with human-robotic interaction.

Skipping ahead, 1898 was the year the ostracized inventor and genius, *Nikola Tesla (1856 - 1943)*[3] demonstrated his 'teleautomation' to the spectators at Madison Square garden in New York City. His device was in fact a radio-controlled boat that worked perfectly, although the audience believed it to be some kind of parlor trick, and so this technology was not seen in full use until decades later. Tesla had countless inventions that became the 'bread and butter' of what we see now with RF frequency technology, computer science, robotics, and more, although most in mainstream circles have swept him under the carpet.

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[1] Wikipedia The Free Encyclopedia, 'Wolfgang von Kempelen', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Wolfgang_von_Kempelen (accessed 29 Jul. 2013)

[2] Wikipedia The Free Encyclopedia, 'The Turk', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/The_Turk (accessed 29 Jul. 2013)

[3] Tesla Memorial Society of New York, 'Tesla Biography', http://www.teslasociety.com/biography.htm (accessed 29 Jul. 2013)

The actual term, 'robot', was finally coined in the 20th century by Czech playwright, *Karel Capek (1890 - 1938)*[1], in his 1921 play entitled, *Rossum's Universal Robot*[2]. Capek changed the word from the Czech word *robata,* which means 'drudging, forced work'. At the end of the play, robots take over the earth and destroy their makers. So, before you had *Terminator*, *The Matrix*, or *Screamers*[3], you had this creation from the mind of Karl Capek. It would be correct for us to give credit to Capek for introducing not only the word but the driving force behind much of what we see today in Hollywood.

Robotics does have an extensive history that simply cannot be covered in its entirety here, but there are, however, many interesting websites and books available that are devoted to just this topic. In order for us to get into some of the more in-depth information, though, there are three more important dates that relate to robotics and bionics that should be included within these pages:

In 1942, American science fiction writer, *Isaac Asimov (1920 - 1992)*[4], published a short story entitled, *Runaround*, which introduced the Three Laws of Robotics:[5]

1. A robot may not harm a human being, or, through inaction, allow a human being to come to harm.
2. A robot must obey the orders given to it by human beings except where such orders would conflict with the First Law.

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[1] Wikipedia The Free Encyclopedia, 'Karel Capek', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Karel_%C4%8Capek (accessed 29 Jul. 2013)

[2] Wikipedia The Free Encyclopedia, 'R.U.R.', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/R.U.R. (accessed 29 Jul. 2013)

[3] *Screamers*, dir. by Christian Duguay (1995; Columbia Pictures, 2012 DVD)

[4] Isaac Asimov Home Page, http://www.asimovonline.com/asimov_home_page.html (accessed 5 Aug. 2013)

[5] Auburn University, 'Isaac Asimov's 'Three Laws of Robotics'', http://c2.com/cgi/wiki?ThreeLawsOfRobotics (accessed 4 Sep. 2013)

3. A robot must protect its own existence, as long as such protection does not conflict with the First or Second Law.

These three laws are open to quite a bit of interpretation depending on the situation and which exception to which rule applies, or overrides any other. Basically, what we see here is that the creator of the robot is not to be harmed by its robot (rule 1), but the robot could be ordered to harm someone else (rule 2), and if the robot 'feels' it is in harm's way it could harm its creator if it needs to for the purpose of survival (rule 3). Obviously the combinations and situations these rules can apply in can be numerous. While the rules, and their exceptions, seem sensible, in the end they really fall wayside to possibilities of chaos within the order. As you continue to read further about technologies in use now and in development for the military, keep these rules in mind.

1948 was the year British robotics pioneer, *William Grey Walter (1910 - 1977)*[1], created autonomous machines called 'Elmer' and 'Elsie' that mimic life-like behavior with very simple circuitry. These were the first 'turtle' robots. They were described as turtles due to their shape and slow rate of movement. What really caught the eye of colleagues were the robots abilities to find their way to the recharging station when low on battery power. This paved the way for not only bionics, but for the concept of a self-aware machine.

The origin of the word 'bionic' can be debated, depending on which source you read. Some believe it is a portmanteau; that is, a word created from two other words and combining definitions into a new single definition. The claim is that the term was derived from **bio**logy + electro**nics** thus creating 'bionics'. Depending on the technical field or science there are other versions of the word in use, like, biomimicry,

[1] Wikipedia The Free Encyclopedia, 'William Grey Walter', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/William_Grey_Walter (accessed 5 Aug. 2013)

biomimetrics, bio-inspiration, biognosis, and bionical creative engineering[1]. Most of these are utilized in some form for synthetic biology/biotech, GMO, artificial intelligence, cybernetics, and even pharmaceuticals.

The man given most credit for coining the term in 1958 is Medical Doctor and retired U.S. Air Force Colonel, *Jack E. Steele (1924 - 2009)*[2], who, during the time, was working at the Aeronautics Division House at Wright-Patterson Air Force Base in Dayton, Ohio. To this day, it is not just the U.S. Air Force investing a lot of money into bionic robots, but other military branches as well. It is said that Mr. Steele came up with the word using the Greek word, *bion*, which means 'unit of life', and then he added the suffix –ic which means 'like', thus giving us a new word that means, 'life-like'. We see the application of this word used today with DARPA micro-drones, FESTO bionics, and other corporations developing these 'life-like' robots.

Having a better understanding of how robotics came to be, helps us to recognize what we have been seeing heavily for the past forty years, and how robotics and bionics have been used in various ways to further the agenda of those in The Construct. I encourage the reader to refer to the following sections within this book as they all pertain to what will be discussed next: **Artificial Intelligence**, **Brain-Machine Interface**, **Nanotechnology**, **DARPA**, **FESTO**, and **Cybernetics**. Hundreds of thousands of papers and books have been written on the subject and I simply cannot in one chapter cover such a vast global technology, but the brief information in the sections above will help to understand the information in this section.

An internet search about 'robots' or 'robotics' will give you millions of results, and one could spend a lifetime researching this topic: as some already do. In order to paint a clear picture

[1] Wikipedia The Free Encyclopedia, 'Bionics', Wikimedia Foundation, Inc. https://en.wikipedia.org/wiki/Bionics (accessed 29 Jul. 2013)

[2] iLasting.com, 'Jack E. Steele', Stergeron, http://www.ilasting.com/jacksteele.php (accessed 29 Jul. 2013)

of why robotics is a huge part of Transhumanism, and why it poses such a great risk to the mind, body, and spirit of the human, it is necessary to cover a few specifics, and explain why each are in need of being carefully monitored.

When researching robotics, DARPA is one common thread that often appears, since they have invested billions into the research and development of robotics, cybernetics, and bionics, in order to further advance the war machine. They have hundreds of current and past solicitations for contract awards that are highly sought after by universities, institutes, and corporations, because getting a contract from DARPA usually means filling deep pockets.

DARPA likes to have challenges where entities compete against each other to design the best machine, program, or other technology, depending on what they are looking for. Most famous is the DARPA Urban Challenge[1] where builders compete in a race against each other with vehicles. The trick is that the vehicle has no driver, and must operate completely autonomously. The R&D (research and development) that results from this challenge is utilized to further the creation of autonomous and AGI drones for military use.

DARPA has taken robot design to a higher level with their newest challenge. Some readers may already be aware of the 'Robotics Challenge'[2] which some of the top institutes and corporations in the field are competing in, at the time of writing. The goal is to create a fully functional machine-learning autonomous humanoid robot. All competitors currently involved have built Terminator-like robots, but the one DARPA features for the challenge, named *ATLAS*[3], is the most

[1] DARPA Urban Challenge, U.S. Department of Defense, http://archive.darpa.mil/grandchallenge/ (accessed 4 Dec. 2010)

[2] DARPA Robotics Challenge, U.S. Department of Defense, http://www.theroboticschallenge.org/ (accessed 17 Jul. 2013)

[3] DARPA, 'DARPA's ATLAS Robot Unveiled', U.S. Department of Defense, http://www.darpa.mil/NewsEvents/Releases/2013/07/11.aspx (accessed 17 Jul. 2013)

foreboding. At 74 inches tall and weighing in at 330 pounds, this robot is a massive looking force to reckon with. The objective of the challenge, according to the DARPA Robotics Challenge website, is stated in the following paragraph:

"In the early stages of a number of recent disasters, it was clear that there were limitations to what humans could accomplish due to dangerous situations (e.g., Fukushima). Humanitarian Assistance and Disaster Relief (HADR) is one of the primary missions of the Department of Defense, and in order to be prepared for future disasters, DARPA's goal is to spur the development of an adaptable robot that can remove humans from dangerous areas to allow issues to be mitigated from a safe location. [...]"

On the surface this seems reasonable, but digging further into not only other current programs of DARPA, but the projects of the current participants for this challenge, uncovers a robotic world which is being built on an epic scale that is slowly being integrated into society. At some point, this will have the same effect as a frog in a pot of water slowly being brought to boiling point. In fact, I believe that this happening now.

Sure, the Department of Defense is a participant in disaster relief (which is a big recruiting tool), and of course they want to be prepared for future humanitarian relief, or even perhaps dealing with a situation like Fukushima[1] - but they are still the Department of Defense, and if one just stops at the aforementioned description of this challenge, then you have served yourself in no productive manner when it comes to figuring out this mess.

The ATLAS robots can also be equipped with weaponry like the autonomous war machines in use now. Most think that DARPA just deals with advanced weapons, computer science,

[1] Jeff Rense Website, 'Fukushima Reactor Disaster', http://rense.com/Datapages/japanquakedat.htm (accessed 12 Mar. 2011)

space technology, and super soldier equipment, but those people have missed a huge part of the equation. DARPA has truly taken a new direction in the field of robotics, and have the solicitations to prove it. Generally when people hear the term 'UAV' (Unmanned Aerial Vehicle) or 'Drone' they think immediately of the most common of these in use today: the Predator Drone - a heavy resource in the Middle East. What people for the most part have no clue about are the UUV (Unmanned Underwater Vehicle), the UGV (Unmanned Ground Vehicle), and even the Bionic Micro-Drones in development, and currently being used by the military.

Moving on to the other entities that are not only developing and building autonomous war machines, but machines that they, themselves, even specify will be used to replace humans, it is important to keep in mind that most of the military application robotics are projects funded by DARPA. Also, do not forget how invested the U.S. government is in the military/civilian growth of robotics - so much so that they created the National Robotics Initiative[1] and made it effective on January 14th, 2013, as well as creating two proposal deadlines for next year.

The NRI states:

"The goal of the National Robotics Initiative is to accelerate the development and use of robots in the United States that work beside, or cooperatively with, people. Innovative robotics research and applications emphasizing the realization of such co-robots acting in direct support of and in a symbiotic relationship with human partners is supported by multiple agencies of the federal government including the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), the National Institutes of Health (NIH), and the U.S. Department of Agriculture (USDA). The purpose of this program is the development of this next generation of

[1] National Robotics Initiative, National Science Foundation, http://www.nsf.gov/pubs/2012/nsf12607/nsf12607.htm (accessed 19 Jul. 2013)

robotics, to advance the capability and usability of such systems and artifacts, and to encourage existing and new communities to focus on innovative application areas. It will address the entire life cycle from fundamental research and development to manufacturing and deployment. Methods for the establishment and infusion of robotics in educational curricula and research to gain a better understanding of the long term social, behavioral and economic implications of co-robots across all areas of human activity are important parts of this initiative. Collaboration between academic, industry, non-profit and other organizations is strongly encouraged to establish better linkages between fundamental science and technology development, deployment and use. [...]"

What you will learn, however, is that those who have decided to participate in the NRI are going far beyond the initiative and creating robots that will replace humans outright, or worse: hunt them down. You cannot make this up, and the proof I have should give no question to the seriousness of this, which is, as I have said before, incorporated into The Construct, starting with Transhumanism. So, to continue, we need to discuss the robotics in development, and those currently being used now that have been specifically designed for the military and for corporations, in order to replace human beings.

It is safe to say that Carnegie Mellon University, the same university that brought us Claytronics and many other Transhumanism products, has the largest robotics department of those in the business of robots. The CMU Robotics Institute[1] is massive, but digging deeper one will find a mega-robotics development center called the National Robotics Engineering Center (NREC)[2]. After spending days in a row on just this one website, which led to many more, I was taken on a research journey that created an awakening within an awakening.

[1] The Robotics Institute, Carnegie Mellon University, http://www.ri.cmu.edu/ (accessed 23 Jul. 2013)

[2] National Robotics Engineering Center, Carnegie Mellon University, http://www.nrec.ri.cmu.edu/ (accessed 21 Jul. 2013)

The NREC has six main markets it focuses on for robotics, and these are: agriculture, mining, medical, energy, general industry, and defense. Within each market they have a wide variety of robotics and various related software and hardware being developed, or already put into the field for testing. In the project section for agriculture alone they have several autonomous machines for harvesting and various other agricultural based tasks. Pay close attention and take note of the following two excerpts from the Row Crop Harvester[1] and Container Handling[2] machines the NREC is developing:

Row Crop Harvester: *"Capable of operating day and night, the robot can harvest crops consistently at speeds and quality exceeding what a human operator can maintain. [...]"*

Container Handling: *"This reduces the horticulture industry's reliance on manual labor, increases nursery productivity, improves field safety, and reduces plant handling costs. [...]"*

These are just two examples directly mentioning how manual labor and skills can and will be outsourced to the machine. Think of how bad the motor vehicle industry was hit in regards to lay-offs when a lot of the factories became automated. Imagine how it could end up, because the NREC does not just stop at agriculture: they mention this in all of the markets they are involved with.

Remember, part of the requirement for this posthuman world is that humans do not have to do a thing except live in a cyber-euphoric state of being where they are served 24/7 by their

[1] National Robotics Engineering Center, Carnegie Mellon University, Projects, Autonomous Technologies, 'Row Crop Harvesting – Application', http://www.nrec.ri.cmu.edu/projects/auto_harvesting/application/ (accessed 22 Jul. 2013)

[2] National Robotics Engineering Center, Carnegie Mellon University, Projects, Mechanisms & Manipulation 'Container Handling – Overview', http://www.nrec.ri.cmu.edu/projects/container/ (accessed 22 Jul. 2013)

robotic slaves. That is the idea - but the reality, I believe, could be nothing further from that fairy tale because most seem to neglect the war machine side of all of this.

The NREC has a huge R&D section for military, and they are not only an active participant in DARPA's Robotics Challenge but are also working with the agency on several other projects. I am always, in a darker way, amused by the names these entities choose when it comes to military equipment. Such names for war machines, some of which were mentioned earlier in the book, include: *Crusher*, *Black Knight*, *RATS*, *Spinner*, and *PerceptOR*, to name a few[1]. The NREC also have UGVs the size of tanks, heavily armed, all the way down to those the size of a small remote-controlled car.

The range of use of the technology and the ways in which it is being utilized has been depicted closely in futuristic/sci-fi Hollywood movies. The software and hardware is extremely complex now, and only gives more credence to the term, 'Rise of the Machines'. The NREC is developing everything from machine learning to manipulation of robotic appendages. This is barely scratching the surface of what they are doing, but I feel I have made my point. I will continue to keep an eye on their work, and I hope you consider doing the same.

Robotic Technology, Inc.[2] is hardly even a blip on the radar, but their R&D and influence in the world of autonomous robotics is huge. RTI currently has three contracts with DARPA, unsurprisingly, and these are as follows, per the RTI website:

Military Memetics Project: *"Ultimately, Military Memetics may be able to: develop a new, peaceful approach to countering terrorists and insurgents, before and after they become terrorists and insurgents, by: influencing behavior in a*

[1] National Robotics Engineering Center, Carnegie Mellon University, Markets, Defense, http://www.nrec.ri.cmu.edu/projects/defense/index.php (accessed 23 Jul. 2013)

[2] Robotic Technology, Inc., http://www.robotictechnologyinc.com/ (accessed 29 Jul. 2013)

predictable way; preventing irrational conflict and promote rational solutions to national and international problems; strengthening the U.S. [M]ilitary in peacekeeping missions, psychological operations, recruitment, and training; and making new scientific discoveries concerning the human brain, cognition, and social networks.

"A concise definition of a meme is: a meme is information which propagates, persists, and has impact. Memetics is the study of memes. [...]"[1]

Intelligent Vehicle Technology Transfer (IVTT) Program: *"The purpose of the IVTT Program is to facilitate intelligent vehicle technology transfer between the Department of Defense (and its stakeholders) and the Department of Transportation (and its stakeholders) in order to: save lives on the battlefield and on the roads and highways; to save money on systems and infrastructure; and to ease the emergence of a transformational (disruptive) technology which will impact military tactics, strategy, and doctrine, as well as boost the automotive industry and society in general, leading to new systems, emergent enterprises, and national wealth. [...]"*[2]

Energetically Autonomous Tactical Robot (EATR) Project: *"The purpose of the Energetically Autonomous Tactical Robot (EATR)™ (patent pending) project is to develop and demonstrate an autonomous robotic platform able to perform long-range, long-endurance missions without the need for manual or conventional re-fueling, which would otherwise preclude the ability of the robot to perform such missions. The system obtains its energy by foraging – engaging in biologically-inspired, organism-like, energy-harvesting*

[1] Robotic Technology, Inc., 'Military Memetics (Information Propagation, Impact, and Persistence – Info PIP) Project', http://www.robotictechnologyinc.com/index.php/military-memetics (accessed 29 Jul. 2013)

[2] Robotics Technology, Inc., 'Intelligent Vehicle Technology Transfer (IVTT) Program', http://www.robotictechnologyinc.com/index.php/IVTT (accessed 29. Jul. 2013)

behavior which is the equivalent of eating. It can find, ingest, and extract energy from biomass in the environment (and other organically-based energy sources), as well as use conventional and alternative fuels (such as gasoline, heavy fuel, kerosene, diesel, propane, coal, cooking oil, and solar) when suitable.

"In addition to missions requiring long-range, long-endurance ability, the EATR can provide direct support to combat units without requiring labor or materiel logistics support for refueling. EATR could forage for its own energy while the unit rested or remained in position. EATR, having a heavy-duty robotic arm and hybrid external combustion engine, could provide direct support to combat units by: carrying the unit's backpacks and other materiel (the mule function); provide RSTA, weapons, support, casualty extraction, or transport; provide energy to recharge the unit's batteries or directly power command and control centers. [...]"[1]

In review of the above, Military Memetics is a project funded by DARPA which is being developed by a robotics corporation and will be used in the field for psychological operations, influencing behavior, military recruitment, and, well, basically social engineering - and all by the military of the U.S. Government. This should sound many alarm bells, just as it did when the military gave LRADs to police (Long Range Acoustic Devices[2], or, sonic weaponry). I highly recommend viewing the Memetics Compendium and Overview Presentation, both linked on the website, as these go into further detail about this PSYOP weapon.

The Intelligent Vehicle Technology Transfer (IVTT) Program is really quite simple - it is the transferring of intelligent vehicles (UGVs, UUVs, UAVs) between the military and government

[1] Robotics Technology, Inc., 'Energetically Autonomous Tactical Robot (EATR) Project', http://www.robotictechnologyinc.com/index.php/EATR (accessed 29 Jul. 2013)

[2] LRAD Corporation, http://www.lradx.com/site/ (accessed 11 Feb. 2010)

agencies for, as I see it, the purpose of a growing techno-police state; though I am sure RTI would disagree with me.

The final project listed above is a robot that, I believe, defines what it might feel like to be trapped within a science fiction movie. I first heard about the 'Energetically Autonomous Tactical Robot' while listening to *Texe Marrs*[1] discuss his latest book, *Robot Alchemy*[2], on the Jeff Rense Show[3]. The book's subject is Transhumanism, and Texe Marrs has, without a doubt, done some very thorough research into the many branches of The Construct. This was how I came across the RTI, and its various projects.

The EATR - an ironic acronym to say the least - does exactly as described. It has received a lot of negative publicity recently - as it should - which prompted RTI to issue a press release concerning the matter. Many were saying that this robot would be capable of collecting and eating human carcases such as those left on a battlefield, and I have also read some material that states the EATR is capable of consuming chicken skin as a source of fuel, but I have yet to confirm this, although the RTI continue to deny it.

The RTI's description is quite specific, but since most biological life is made up of H2O, carbon, and so forth, would it not also be plausible for such a fuel-needy machine to consume dead flesh? What if this machine-learning robot became self-aware and was in a desolate location where vegetation was scarce, but flesh was not? What might this autonomous robot do for the purpose of a programmable self-preservation? These questions must be seriously asked and considered, or we could

[1] Power of Prophecy, http://www.texemarrs.com/ (accessed 7 Jun. 2010)

[2] Texe Marrs, *Robot Alchemy – Androids, Cyborgs, and the Magic of Artificial Life* (Rivercrest Publishing, 2013) http://www.texemarrs.com/Merchant2/merchant.mvc?Screen=PROD&Store_Code=catalog&Product_Code=bbtm_robot_alchemy (accessed 3 May 2013)

[3] Jeff Rense Website, Rense Radio Network, http://www.renseradio.com/listenlive.htm (accessed 7 Jun. 2010)

be caught in a rough spot before too long. People joke about SKYNET[1] from the *Terminator* movies, but the deeper I search, the closer we are looking at a clear, possible, and *present* danger.

There are three more corporations that need covering before concluding this section on robotics and bionics, which both work closely together. In recent times, there have been articles and news clips covering technological advancements such as the dog-like robot, or robots that mimic the motions or behaviors of insects - and that is where bionics fits in as described in the beginning of this section. Bionics have become very popular with the commercial industries through the design of toys for all ages, and even through assisted living technology. Two companies come immediately to mind pertaining to this: the first, which requires a detailed review, is Robugtix.

Robugtix[2] is a trademark of Amoeba Robotics Ltd., which is a research, engineering and design company based out of Hong Kong, and founded in 2010. Although it is a young company, they have already been featured in a number of the very popular technology magazines and Transhumanism websites. As far as what they have to offer, how does a bio-inspired multi-legged robot, suit you? They currently have two designs: one is the Octopod called the *T8* which looks exactly like a tarantula, and the other is the Hexapod called the *iitsii* that resembles a crab. For the time being they are remote-operated, but I will not be surprised if the company is developing fully autonomous models.

These might seem harmless and perhaps they are, as remote-controlled toys have been around for quite some time - still, I have two prime concerns:

[1] Wikipedia The Free Encyclopedia, 'Skynet (*Terminator*)', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Skynet_%28Terminator%29 (accessed 15 Jul. 2013)

[2] Robugtix, Amoeba Robotics Ltd., http://www.robugtix.com/ (accessed 17 Jul. 2013)

1.) Bionic robots are in high demand and being heavily funded by the military for more life-like and invasive drones. This could pose an even greater risk to our privacy than we already see now. Plus, along with this, there is a noticeable and growing trend of Telepresence Gaming[1], which is a form of virtual or augmented reality that utilizes brain-computer interfacing, now being looked at further for products similar to the T8.

2.) The more that organizations like the Human-Robot Interaction Community, or the work of Dr. Cynthia Breazeal, seek to integrate this virtual and augmented reality where the line between human-to-human interaction, and human-to-robot interaction is fading quickly, the more likely this will cause social interaction and communications skills to default.

Those who have seen the movie, *I, Robot*[2], will find this next part interesting although it is not at the level of robotic humanoid servants just yet. Transhumanism is the best at life imitating art, and the iRobot Corporation[3] is no exception. This company covers autonomous robots for the home, military defense & security, maritime applications, commercial applications, and includes robots for educators.

For home applications, the average techno-zombie can spend more time eating toxic waste and being a slave to the mind-control device known as a 'television', all the while getting fatter and sicker in the comfort of their recliner, prepped and primed for the final phase of Transhumanism. Some products the iRobot Corporation have will sweep, mop and even clean your rain gutters - all with the push of a button. Some of the robots even charge themselves when they know they are low on battery life, and operate with Wi-Fi NorthStar technology. It seems that the social phase has decided to convince people that

[1] NeuroGaming Conference and Expo 2014, http://www.neurogamingconf.com/ (accessed 7 Aug. 2013)

[2] *I, Robot*, dir. by Alex Proyas (2004; 20th Century Fox, 2009 DVD)

[3] iRobot Corporation, http://www.irobot.com/us/ (accessed 19 Jul. 2013)

basic manual housekeeping is just too archaic for such a 'progressive' species.

For the medical industry, they decided to get really impersonal with such robotics like the *Ava 500* and the *RP-VITA*, which, in a sense, are robotic autonomous medical doctors. They have three categories for this: Video Collaboration, Autonomous Healthcare, and Mobile Robotics Platform. I have no doubt that the engineers of Obamacare would just love to have a few thousand of these in federal run hospitals.

iRobot Corporation is, of course, no stranger to R&D for the military, in fact, their involvement with DARPA is a given. They have their hands full with contracts to fulfill for the military, and I have found records on purchases the military made of robotics from iRobot in the hundreds of millions of dollars[1]. DARPA have purchased, in huge quantities, all the military application robots the company has to offer - from underwater, to small surveillance robots that can be thrown into a second story window. iRobot is definitely in the Military-Industrial Complex business, and, according to their own records, business is booming. I recommend exploring their website and further looking into the models they call the *110 FirstLook*, and *710 Warrior*. This company, no doubt, is making a huge impact for the techno-war machine.

The last company requiring a brief overview is TRACLabs, Inc.[2] who has been a leading innovator in robotics, automation, and intelligence software. The three areas they focus on are military, oil and gas, and NASA - of whom they have been working with since 1994. The company also is a participant in DARPA's Robotics Challenge. Some of the projects they are working on incorporate virtual reality and artificial intelligence as well. One look at the website will show that this company is

[1] iRobot Corporation, 'Press Release Archive', http://www.irobot.com/us/Company/Press_Center/Press_Releases/Archive.aspx (accessed 19 Jul. 2013)

[2] TRACLabs, Inc., http://traclabs.com/ (accessed 17 Jul. 2013)

maintaining a cutting edge level of work improving upon intelligent design for robotics. They have even developed a *Robonaut* for space missions, as well as *The Centaur* for the purposes of automated land-based planetary exploration[1].

Whilst I have no problem with the concept of sending robots into space for exploration - and I hope it stays that way with what TRACLabs is doing - we cannot forget that they are involved with DARPA, and military robotic development. Being that they are a trusted partner to NASA (who is notorious for keeping secrets), I wonder how this working relationship has developed since 1994. Most of those reading this now are aware on some level that there is a secret space mission that also consists of U.S. Air Force Space Command and the U.S. Navy Space Command.

Terraforming is considered a taboo subject for the most part, but could robots be utilized for the terraforming of a not-so-distant planetoid where a techno-based colony may be settled? If so, would the colony be something of a high priced elitist type of utopia ready for settlement after the Earth finally succumbs to all the greed and carelessness that has been done to its ecosystem? It could all be speculation on my part, but perhaps I am on to something that in the near future might become a reality.

I do not believe that robots are inherently 'evil', and I do understand how they can be a benefit to humanity, especially in clean-up situations where people are at high risk of contamination, or suffering a slow death from radiation poisoning like the unfortunate workers at Fukushima Daiichi nuclear facility in Japan. All nuclear dirty energy needs to be abolished as soon as possible, and it is situations like the one in Japan where robots could in fact be utilized to save human lives.

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[1] TRACLabs, Inc., 'Robot All Stars', http://traclabs.com/robotics/robot-all-stars/ (accessed 17 Jul. 2013)

When it comes to assisted living for people with disabilities, or prosthetics for a wounded veteran, perhaps, I do believe robotics have been essential in allowing these people to live better lives. My concern is heightened when I find so many institutes and corporations getting handed millions of dollars to develop more advanced robotics for the Military-Industrial Complex, and in turn, to further The Construct's agenda of Transhumanism. Robotics are contributing heavily to social engineering, mind control, the war machine, and much more. It is, yet again, a concept that has great potential - but unfortunately it has been compromised by those who wish to not only transform the planet, but everything that exists upon it.

Synthetic Biology

Definition of *SYNTHETIC BIOLOGY*

1. Synthetic Biology uses parts of artificially designed functional modular nucleic acid elements predefined in silico, synthesized in the laboratory, and provided by use of replicating systems. These are intended to be functional on different interaction levels between DNAs, proteins, RNAs and poly-saccharides, in order to create artificial biological systems of higher order function. Application driven approaches clearly are tending for building up complex systems extending all capabilities for solving today's and future problems of medical care, environment, and nutrition.

In mid-June of 2010 while doing some research into nanotechnology, I came across an article discussing how a private research laboratory had made a huge breakthrough in the world of DNA and microbiology. What I found was astounding, and immediately caused me to be alarmed. Burying myself deep into the institution responsible for this creation led me on a path I still travel today in search of all the information, research, and development in the Transhumanism science known as synthetic biology.

Synthetic biology is a melding of different science fields, including those such as nanotechnology, microbiology, biotechnology, genetics, and human genome research, among a host of others. It is a very technical merging of sciences that requires a lot of reading for the average person to gain a full understanding about the theories and mechanics behind it. One could spend countless hours mentally pouring over labor

intensive abstracts, scientific publications, technical reports, and much more, rarely submerging past the surface of the topic.

Personally, I could not help but feel an overwhelming need to discover all I could on the subject, and what I have uncovered seems every bit as much a part of an invisible realm as it does the infiltration of this one; where the once unthinkable ideas only depicted in the world of science fiction quickly become reality. Most institutes working on this controversial science seem to have priorities that lean toward the evolution of the medical industry, energy industry, agricultural industry, and some, even a combination of all three. Most research projects seem to be sponsored and/or funded by organizations that certainly make no effort in hiding some sort of ideology of Transhumanism. These institutes, on occasion, appear to sponsor and fund each other like they were part of a closed-door 'Synthetic Biology Brotherhood'.

Multinational corporations whose business is in petroleum, or agriculture, or in support of either one, also sponsor such projects and have laboratories in place to further the growth of this fairly new science. It has truly become a global hot bed for debate, but although there are a great number who feel this poses a real risk to life on the planet if it becomes uncontrollable, we are up against huge entities that have embarked upon supportive projects for the European Union, United Nations, and so on.

The question we need to ask is how we got to this stage, but, more importantly now, where might it lead our civilization? What does appear certain is that synthetic biology is the youngest sibling in the Transhumanism technology structure, because without any ancient roots originating from past technologies, this one is unique. As synthetic biology is a composite of multiple sciences, its origins have slowly evolved as technologies were melded together. In fact, it may not have ever come to fruition if it had not been for the Human Genome Project.

The earliest origin of this science appears to be the work of German chemist, *Friedrich Wohler (1800 - 1882)*[1], who, in his time, was considered one of the finest in his field. In 1828, he applied ammonium chloride (NH4Cl) to silver isocyanate (R–N=C=O) in order to produce urea, which is also known as carbamide (H2NCONH2), the main nitrogen-carrying compound found in the urine of mammals. By doing this, Wohler synthesized an organic substance from inorganic matter.

Whilst only a very basic principle of synthetic biology, it was Wohler's work that allowed future scientists to synthesize organic matters in multiple ways over the next 140 years. It seems appropriate to give Wohler the title of 'Father of Synthetic Biology', however, it would not be to his credit for giving this innovation its name, as that would not happen until at least another century later.

French medical scientist and biologist, *Stephane Leduc (1853 - 1939)*[2], published a book in 1912, entitled, *La Biologie Synthétique*[3], which translates to *The Synthetic Biology*. In his work, he discusses how there existed within the known laws of science a science of synthetic method that attempts to reproduce observed phenomena in a rule-governed and reproducible manner. He implied that there was an untapped science within a science that held possibilities beyond what most would have imagined.

What Leduc had to say was quite interesting, but it was not he, who, in the early stages of this science, has troubled me. We can easily give Leduc credit for naming synthetic biology, but the point at which I consider it being born into what would

[1] Wikipedia The Free Encyclopedia, 'Friedrich Wohler', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Friedrich_W%C3%B6hler (accessed 22 Jun. 2013)

[2] Wikipedia The Free Encyclopedia, 'Stephane Leduc', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/St%C3%A9phane_Leduc (accessed 22 Jun. 2013)

[3] Stephane Leduc, *La Biologie Synthétique*, 1912, http://books.google.com/books/about/La_biologie_synth%C3%A9tique.html?id=CdMrAQAAMAAJ (accessed 23 Jun. 2013)

become part of The Construct and the ideology of the Transhumanism movement actually happened one year prior to Leduc publishing his book.

In 1911, German biologist and physiologist, *Jacques Loeb (1859 - 1924)*[1], who had an interest in the area of artificial parthenogenesis, had his own hypothesis of this concept that would later be known as synthetic biology. Loeb had this to say:

"[It] must be emphasized that modern biology is a purely experimental science, the results of which can take only one of two possible forms: either we succeed in controlling a life phenomenon to the extent that we can evoke the same whenever we wish (for example, muscle twitches or the chemical stimulation of the development of certain mammals' eggs); or else we manage to identify the numerical connection between an experimental condition and the biological result (such as in the Mendelian law). [...]"[2]

In other words, Loeb hypothesized the almost mandatory need to control biological life so as to evoke it whenever humans wished it. This is quite troubling, and whilst I cannot say for sure if Loeb had other thoughts or ideas on the God-like theories some scientists carry within them, this one quote creates quite the stir; and, once you have learned more about what the minds behind synthetic biology are doing today, I think you will find that Loeb's hypothesis was taken to heart.

Starting in the 1970s, scientists began conducting various experiments with genetic engineering and DNA technology. What they were managing to accomplish was to modify the genetic code of wild-type or naturally occurring bacteria by a

[1] Wikipedia The Free Encyclopedia, 'Jacques Loeb', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Jacques_Loeb (accessed 23 Jun. 2013)

[2] Joachim Boldt, 'Synthetic Biology: Origin, Scope, and Ethics', *Center for Humans & Nature*, Vol. 3, No. 1, Apr. 2010, http://www.humansandnature.org/synthetic-biology--origin--scope--and-ethics-article-50.php (accessed 21 Jul. 2013)

method of inserting single-wide genes that would cause it to alter its function. The methods developed this way then evolved into the production of biological drugs, which have been created in this synthetic manner: one example being synthetic insulin. Although there were limitations at one stage due to what technology was available at the time, this barrier was since removed thanks to one institute that would later shake the scientific community, and pave the way for a new revolution in synthetic biology.

It was the J. Craig Venter Institute[1] that would fuel the fire inside of me, leading me on a personal journey into the depths of synthetic biology: the same institute of which became the topic of a number of articles I had written since 2010, and one that has truly raised the bar of technology in this field. The information and technical papers on their website relating to their successful synthetic 'creature' lifted JCVI into scientific fame just about over night. In June of 2007, they grabbed the attention of the synthetic biology community when they successfully transplanted the entire genome of one species of bacterium (*Mycoplasma mycoides*) into cytoplasm of another bacterium (*Mycoplasma capricolum*). This was the first ever successful full genome transplant the world had seen. This new bacteria was completely devoid of its native genes, but then it was observed that after cell division, the new bacteria became similar in observable characteristics to one of its 'parents' (*Mycoplasma mycoides*).

JCVI did not stop there, though, and in January of 2008, scientists *Daniel G. Gibson* and *Hamilton O. Smith* decided to step things up a bit[2]. They were able to successfully assemble a genome that was a modified version of the genome of the bacterium (*M. genitalium*) - and they did it all from scratch. The procedure was so successful and so exact that the new synthetic

[1] J. Craig Venter Institute, http://hmp.jcvi.org/ (accessed 27 Oct. 2010)

[2] J. Craig Venter Institute, 'First Self-Replicating Synthetic Bacterial Cell – Overview', http://www.jcvi.org/cms/research/projects/first-self-replicating-synthetic-bacterial-cell/overview/ (accessed 27 Oct. 2010)

version was hardly different from its organic counterpart. Synthetic biology would now never be the same, and climb ever upwards to higher levels from that point on with JCVI paving the way. It would only be two more years before the scientific community would be stunned and amazed with what was about to be introduced to the world.

In May of 2010, the same month I found the article[1] that started my research into synthetic biology, the scientists at JCVI had accomplished something straight out of science fiction. Researchers from the institute announced to the world that they had created a 1.08-million-base-pair synthetic genome. They then inserted this synthetic genome into the cytoplasm of a bacterium, making the first official synthetic life-form with a synthetic genome. In other words, the scientists had indeed created a *new life.*

There are some who say this new life cannot be labelled as such because it is simply a bacterium, but, we must remember that bacterium have a life cycle, and the ability to function on their own. Considering that this is the case, it is hard to argue against it.

This genome was created with such precision that it was almost identical to the natural genome (*Mycoplasma mycoides*), with only one tiny and deliberate exception: the scientists had included a 'watermark' in the creation of the new synthetic bacterium life-form, in order to be able to identify it as the synthetic type. This was my first introduction to 'Synthia'[2], the

[1] John Bingham, 'Synthetic life: Dr. Craig Venter seeking 'monopoly', claims gene pioneer', *The Telegraph*, 25 May 2010, http://www.telegraph.co.uk/science/science-news/7762711/Synthetic-life-Dr-Craig-Venter-seeking-monopoly-claims-gene-pioneer.html (accessed 25 May 2010)

[2] Fiona Macrae, 'Scientist accused of playing God after creating artificial life by making designer microbe from scratch – but could it wipe out humanity?', *Mail Online, The Daily Mail*, 3 Jun. 2010, http://www.dailymail.co.uk/sciencetech/article-1279988/Artificial-life-created-Craig-Venter--wipe-humanity.html (accessed 3 Jun. 2010)

new life-form technically called, *M. mycoides JCVI-syn1.0*[1]. To illustrate her creation, here are six simple steps demonstrating the basic process of how synthetic Synthia came to exist:

1. Entire DNA of *Mycoplasma mycoides*, a bug that usually infects goats, is decoded.
2. Researchers buy fragments of DNA from a mail order catalog (strange, but verifiably true). Each of the four bottles of chemicals contain a section of the code.
3. The DNA fragments are placed into yeast, which 'stitches' them together, gradually building a synthetic copy of the original DNA.
4. The artificial DNA is put into a recipient bacterium (usually in a petri dish), which then grows and divides creating two daughter cells: one with the artificial DNA, and the other with natural DNA.
5. Antibiotics in the petri dish kill the bacterium with the natural DNA, leaving the one with the synthetic DNA to multiply.
6. Within just a few hours, all traces of the recipient bug are wiped out and bugs with artificial DNA begin to thrive. Say hello to Synthia and her family.

Synthia is a *Self-Replicating Synthetic Bacteria Cell* life-form, and it is being looked at for many uses. Some of the suggested applications of Synthia may not be as bad as others, and then there are those that, in my opinion, should not even be considered. The following is directly from the FAQ section of the JCVI website relating to synthetic cells. Pay particular attention to the words marked in bold print:

"The work to create a synthetic cell will have a profound and

[1] J. Craig Venter Institute, Press Release, 'First Self-Replicating, Synthetic Bacterial Cell Constructed by J. Craig Venter Institute Researchers', 20 May 2010, http://www.jcvi.org/cms/press/press-releases/full-text/article/first-self-replicating-synthetic-bacterial-cell-constructed-by-j-craig-venter-institute-researcher/ (accessed 21 May 2010)

positive impact on society in that it will enable a better understanding of the fundamentals of biology and how life works. It will lead to new techniques and tools for ***advanced vaccine*** *and* ***pharmaceutical development****, and will continue to enable the development of new biofuels and* ***biochemicals****. As well these technologies could be used to create clean water,* ***new sources of food****, textiles, bioremediation, etc. Dr. Venter and the teams at JCVI and the company Synthetic Genomics Inc (SGI) believe that this science has the potential to be a major wealth driver for societies. A recent report,* Synthetic Biology: scope, applications and implication*, from the Royal Academy of Engineering in the UK states that:* 'Synthetic biology has the potential to create another raft of major new industries, the development of which is **likely to have profound implications for the future of the UK, European and world economies**.' *[...]"*

The ideas JCVI are researching with their projects concerning alternatives to fossil fuel and generating clean drinking water are not bad ideas. Personally, I cannot stand fossil fuels and am disgusted with how this civilization has allowed our drinking water to be tainted with pollutants and toxins. However, when an institute like the J. Craig Venter Institute, along with Synthetic Genomics Inc.[1] - which was co-founded by J. Craig Venter - are looking towards utilizing the technology of synthetic life to aid in advancing vaccines, pharmaceuticals, sources of food, and biochemicals, I get a little concerned.

Mr. Venter himself has stated that the synthetic cell is basically life engineered by way of a computer program, but one must ask what will happen if this tiny synthetic self-replicating bacteria cell life-form gets out of control. It takes just one person with an agenda to let loose a variation of this new life-form that could devastate food supplies, water, cattle, and even humans. When people try to play the role of the Creator, and

[1] Synthetic Genomics, Inc., http://www.syntheticgenomics.com/ (accessed 27 Oct. 2010)

harness this natural order of life, I feel it has the potential of running rampantly out of control. For now, it is safe in a controlled environment, but, who could argue against the possibility that one dangerous vile of this bacterium life-form might potentially 'break-out', so to speak? Could entities with more malevolent agendas already be working on their own synthetic life-forms? Imagine the direction Monsanto could take with Synthia.

As stated by JCVI in the excerpt above, this technology could likely have 'profound implications for the future of the UK, European, and world economies'. The question remains whether the implications would necessarily benefit humanity.

Returning once again to DARPA, the world's largest military defense agency, we find that they have a vested and growing interest in synthetic life-forms, and the technologies involved. In 2001, DARPA engaged in a project called the BioComp Program[1], and within this program was DARPA's Bio-SPICE Project[2], which is quite interesting in detail. It is important to note first that if special interest innovations have unfolded in the course of the project, then it is quite likely at the classified level, increasingly making public information unavailable, or difficult to find.

In the course of my research regarding DARPA's interest in synthetic biology, the BioComp Program was one of the first red flags I encountered. By chance, I had come across a communications file in DSpace@MIT, of the MIT library, the title which was, *DARPA BioComp Plasmid Distribution 1.00 of Standard Biobrick Components*[3]. It was issued on May 22 of

[1] NYU Bioinformatics Lab, 'DARPA BioComp Program 2001-2004', http://bioinformatics.nyu.edu/wordpress/projects/old-projects/darpa-biocomp/ (accessed 16 Feb. 2011)

[2] DARPA Bio-SPICE, http://biospice.sourceforge.net/ (accessed 21 Jun. 2013)

[3] DSpace@MIT, MIT Libraries, Massachusetts Institute of Technology, '*DARPA BioComp Plasmid Distribution 1.00 of Standard Biobrick Components*', (22 May 2002) http://dspace.mit.edu/handle/1721.1/21167 (accessed 21 Jun 2013)

2002, an important date to remember as you continue to read on.

The abstract on this communication was written as follows:

"This distribution consists of 300 ng aliquots of plasmid DNA for each of twelve components and compound constructs utilizing our idempotent assembly strategy. The dried DNA should be stable at room temperature for many weeks, but long term storage at -20 or -80 in the resealable foil pouch with desiccant is recommended. This document and much additional information, protocols, and detailed sequences is or will be available from the site http://ks.ai.mit.edu. [...]"

Since this made only minimal sense, I began digging deeper for further clarity, and discovered plenty more about the BioComp program. It ran until 2004, and was an 'Algorithmic Tools and Computational Framework for Cell Informatics'. More technical language to contend with, but fortunately, I found its objective:

"The central claim of this proposal is that, by drawing upon mathematical approaches developed in the context of dynamical systems, kinetic analysis, computational theory and logic, it is possible to create powerful simulation, analysis and reasoning tools for working biologists to be used in deciphering existing data, devising new experiments and ultimately, understanding functional properties of genomes, proteomes, cells, organs and organisms. [...]" [1]

In other words, BioComp was put together as a computer program for designing synthetic cells - a software program for those involved in synthetic biology.

Looking further still, I literally tripped over and found Bio-SPICE by way of a press release from DARPA that was dated

[1] Same source as listed in footnote 2 on page 59.

June 12 of 2002[1]. The press release announced the unveiling of Bio-SPICE, which took place on May 23, 2002, one day after the MIT communication had been published concerning BioComp. Both BioComp and Bio-SPICE work hand in hand. Here is some more technical language, essential to understanding what DARPA is doing in this field, taken directly from the abovementioned press release:

"On May 23, the Defense Advanced Research Projects Agency (DARPA) unveiled the first release of BioSPICE, a suite of software tools used to construct sophisticated computer models that simulate the complex behavior of living cells. BioSPICE Version 1.0 provides life science researchers with a powerful set of open source software modules that can be used to create computer models of many different cellular processes, thereby allowing investigators to explore research questions that are not currently amenable to direct experimentation. BioSPICE is currently being employed to generate simulations of cell-division, circadian rhythms, bacterial sporulation, and gene transcription networks. It is expected to prove particularly useful in simulating the effects of heretofore unknown pathogenic agents in order to rapidly respond to new biological threats. [...]"

It would be an obvious assumption that DARPA is highly interested in 'new biological threats' stated in the citation above, as DARPA is, after all, a defense research agency for the Department of Defense, and it would seem logical that synthetic biology would be assessed as another technology that can allow the war machine to evolve in new directions. Some of the most notorious institutes in the United States who have a history of doing research for the military, DARPA, and even the CIA, are involved in Bio-SPICE. These entities include SRI International, California Institute of Technology, and Massachusetts Institute of Technology, among others.

[1] Bio-SPICE Source Forge, 'DARPA Releases Bio-SPICE Software', DARPA, 12 Jun. 2002, http://biospice.sourceforge.net/documents/bio_release.pdf (accessed 22 Jun. 2013)

Bio-SPICE stands for 'Biological Simulation Program for Intra- and Inter-Cellular Evaluation', which is an open source framework and software toolset for 'Systems Biology'. What this all means in relation to synthetic biology comes to a crescendo with the collaboration of the J. Craig Venter Institute, and DARPA. Hang onto your hats, Ladies and Gentlemen . . .

We know that DARPA hands out millions of dollars to various private institutions and universities in order to fund research and development in the field of synthetic biology. In 2011, DARPA announced they would begin an investment of $30 million over the course of the next three years to assist in jump-starting cellular factories, thereby starting the *Living Foundries* program[1]. A detailed description of this program can be found online by searching DARPA's Solicitation Number: DARPA-SN-11-44.

To throw fuel on an already burning fire, exactly to the very day twelve years after DARPA issued communications about BioComp, they announced a new collaboration with - none other than - the J. Craig Venter Institute[2]. This is an alarmingly unpleasant discovery, because, as part of the Living Foundries program announced the year before, DARPA had already handed out seven research awards to six different companies and institutions worth a total of about $15.5 million. It would seem, though, that DARPA had picked out a favorite, and awarded JCVI with two contracts. The details of the two contracts cannot be verified, but as it is DARPA's Microsystems Technology Office that is behind their interest in the development of synthetic biology, one can only imagine endless possibilities.

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[1] DARPA, Microsystems Technology Office, 'Living Foundries', http://www.darpa.mil/Our_Work/MTO/Programs/Living_Foundries.aspx (accessed 22 Jun. 2013)

[2] Katie Drummond, 'Darpa, Venter Launch Assembly Line for Genetic Engineering', *Wired Danger Room*, 22 May 2012, http://www.wired.com/dangerroom/2012/05/living-foundries/ (accessed 22 Jun. 2013)

With plenty to think about and consider regarding synthetic biology and all it could potentially be used for, there is an overwhelmingly high chance that this technology could have adverse effects on everything from food to synthetically created life, as well as biological weapons, pharmaceuticals, and so much more beyond this list. Multinational corporations, military defense agencies, the medical industry, and others, are all taking part in furthering the development of it for the 'benefit' of humanity.

I believe many of those involved are genuinely concerned about the direction our civilization is going, but are they truly considering all the risk factors in synthesizing nature? Do companies like ExxonMobile and Monsanto, or agencies like DARPA, really have our best interests on their list of priorities? These questions, and many more must be addressed urgently, because there could come a day when you bite into an apple, or swallow a pill, that hosts potentially millions of little Synthia cells that are pre-programmed by DNA coding to react a certain way to a certain cell in your kidney, or perhaps even your brain.

Look closely enough to the science of synthetic biology and you will clearly recognize that these are not exaggerated concerns.

Whilst I am not religious, nor settled on the Creationism or Darwinism theories, there is one thing I know for sure, and that is that history has proven that when people decide to play the role of God, they create chaos somewhere along the line. Tampering with nature, forcing the evolution of life synthetically - whether bacterium, plant, or mammal - will only end in disaster because eventually nature *will* react and we may not like how that happens. The law of nature is to allow the *natural order of selection* - not force it along by way of a test tube.

Synthetic Pandemic: The Biotechnological War

Definition of *PANDEMIC*

1. occurring over a wide geographic area and affecting an exceptionally high proportion of the population

Before beginning this section, it is important for the reader to understand that I am not a doctor or a scientist; nor do I have any specialty in the field of viruses. In fact, over the course of this section I will reference some great sources of information and research that has been done by professionals in the necessary fields, in order to analyze and study this growing problem; essentially, it being the multitude of mutating flu viruses and other forms.

Over the past 20 years, we have been witness to some unusual anomalies involving diseases and flu viruses that leave one to question whether or not they are the product of what humans have done to our environment, or whether they are a product of laboratory experimentation: deliberate, or unintentional. There are many elaborate theories, and some well thought out, but while I, myself, am not quite sure what to make of it all, one thing is clear: never before in the history of human civilization have so many unusual diseases and viruses caused such worldwide sickness in such great variety.

Those who pay attention to the credible alternative media outlets, might have likely seen articles relating to the different strains of flu viruses sweeping the globe. Some have had a casualty rate of up to 50%, which massively exceeds the estimated 3 - 4% of Spanish Flu casualties. It is often impossible to keep on top of the latest statistics, so I tend to shift my focus to the few good doctors and researchers who are not influenced by corruption, and follow what they have to say on the matter.

It seemed to really spiral into what would become a silent pandemic in 2009, with H1N1[1], the first deadly flu virus seen in about 40 years. Since then, we find other strains hitting countries from China to Saudi Arabia, including: H3N2; H5N1; H7N9; SARS; MERS; Beta2 Coronavirus; H3N8; and, even unusual new strains of things like TB that are immune to vaccines[2]. There are also many more, and they seem to surface anywhere from county fairs, to outdoor market places, and even hospitals. Yet, throughout all of this, and not surprisingly, not much is being publicly done by the Center for Disease Control, or the World Health Organization, as, of course, both have a worthless track record.

It gets even stranger than this with a disease that has recently been deemed by the filthy CDC as a 'psychological issue'[3] instead of a real disease: Morgellons[4]. Its origins, and how it is contracted, are a huge mystery. Some suspect that the shadow government is spraying nanoparticles in the sky, and that these particles become the building blocks of Morgellons. If that was the case, there would surely be millions with this disease. Others suggest Morgellons might be an Above Top Secret project, where random, or specific, people are selected for the purpose of BETA testing this biological warfare agent. It is hard to say how, who, why, and what, but one thing is certain, and that is that there is an overwhelming amount of credible evidence that this disease originates from a synthetic source.

I have my own theories on these unusual and continuously morphing diseases and viruses which I feel are indeed a

[1] Wikipedia The Free Encyclopedia, '2009 flu pandemic', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/2009_flu_pandemic (accessed 2 Feb. 2010)

[2] Jeff Rense Website, 'Flu Pandemic News Archive', http://rense.com/Datapages/fludat.htm (accessed 6 May 2011)

[3] Centers for Disease Control and Prevention, 'CDC Study of an Unexplained Dermopathy', http://www.cdc.gov/unexplaineddermopathy/ (accessed 12 Jul. 2013)

[4] Morgellons Exposed, Jan Smith, http://www.morgellonsexposed.com/ (accessed 10 Jan. 2012)

combination of an altered environment due to human greed and savagery, as well as the secrets that happen in laboratories not privy to the public's attention. But this is really not news, since there does exist evidence of laboratories altering and even creating new viruses for the purposes of 'studying' them.

Consider one example that occurred in Rotterdam, Netherlands, back in 2011, when Developer, *Ron Fouchier,* of Erasmus Medical Center had announced that he, with a team of scientists, had created *"probably one of the most dangerous viruses you can make. [...]"*[1] The reason? To see what it took to convert bird flu into an even more contagious virus for the purpose of developing better drugs and vaccines. In a ludicrous and completely insane act, prior to them supposedly being clamped down upon, they had shared their research and results with hundreds of scientists. It only takes *one* rogue and extremely riled person with the know-how to unleash all hell using a virus like that.

These agencies in charge of disease control reek of secrecy that is almost a complete disregard for human life, and this should be a cause for concern and many questions. For example, why is it that the Plum Island Animal Disease Center[2] is under the thumb of the Department of Homeland Security? The center is actually operated by the Agricultural Research Service, which is part of the U.S. Department of Agriculture, but why is DHS the overlord? Anyone who knows anything about DHS knows that they are far from anything that cares or genuinely wants the citizens protected. DHS is nothing more than the Department of Police State Enforcement. Plum Island, itself, is shrouded in mystery and dozens of conspiracies, with one being that the

[1] Fiona Macrae, 'It's too late to keep details of deadly flu a secret! U.S. scientists say details of virus created in laboratory 'are already out there', sparking renewed terror alert', *Mail Online, The Daily Mail*, 22 Dec. 2011, http://www.dailymail.co.uk/sciencetech/article-2077232/Scientist-deliberately-created-Armageddon-bird-flu-virus-lab-says-publish-details.html (accessed 22 Dec. 2011)

[2] U.S. Department of Homeland Security, Science and Technology Directorate – Plum Island Animal Disease Center, https://www.dhs.gov/st-piadc (accessed 19 Oct. 2010)

facility has been moved underground to the Midwestern United States: but that is for a later discussion.

The Center for Disease Control recently started taking a different approach to the slow growing concern of these new super viruses and diseases. It seems the obvious move, since they do not do a damn thing for the public for the most part, but wander around in their own secret facilities where research is conducted that most know nothing about. In an attempt to distract the masses in a way that has proven time tested and quite effective, the CDC have now entered the market of video games and 'apps'. Whilst this might sound innocent enough, CDC's *Solve the Outbreak*[1], available on the popular mind-control device we know as an 'iPad' and other 'Smart' dumbing-down devices, simply takes the cake when it comes to double-blind 'family entertainment'.

Returning to the matter at hand, these unusual diseases are highly suspicious and raise a mega load of new questions. With all of their statistics added together, they more than qualify as a global pandemic. I cannot help but wonder if any of them might be related to some kind of secretive biotechnology research. Perhaps this will be the infamous 'Frankenstein Monster' that will leak out of one of the laboratories conducting research and development in synthetic biology.

Could this be the product of nanotechnology gone wild, or is this part of the plan to downsize the population? Either way, this is certainly a valid discussion within the hierarchy of the Transhumanism community. Moving forward, I hope that a better qualified person is able to search and find some more definitive answers, because for anyone paying attention to this, they will see clearly that it is getting worse.

[1] Centers for Disease Control and Prevention, 'Solve the Outbreak Application', http://www.cdc.gov/mobile/Applications/sto/ (accessed 29 Jul. 2013)

Terraforming

Definition of *TERRAFORMING*

1. transforming a hostile environment into one able to sustain human life; this includes a source of oxygen, water, plant life, and correct air pressure and temperature

Terraforming is not so much a single technology as it is a vision. It is one composed of multiple technological theories involving the creation of habitable conditions for humans to thrive. The ideology for terraforming can involve other planets being formed into a new, ideal, earth-like environment. This is a fairly new concept that only came to recent light in the early part of the 20th century. Though we mostly see this idea depicted in science fiction movies such as *Aliens*[1], *Total Recall*[2], and *Star Trek 2: The Wrath of Khan*[3], it has indeed been evolved to the point where even people at NASA and those in private industries consider the possibilities.

Some readers might believe that this technology, or a form of it, is already in use by those involved in the secret space program on the Moon, Mars, and even Venus. I am not one to argue the matter, as I have my own beliefs and have seen some compelling evidence, but this section will focus only on facts that can be verified, undeniably.

In 1930, British philosopher and science fiction writer, *William Olaf Stapledon (1886 - 1950)*[4], wrote the book, *Last and First*

[1] *Aliens*, dir. by James Cameron (1986; 20th Century Fox, 1990 VHS)

[2] *Total Recall*, dir. by Paul Verhoeven (1990; TriStar Pictures, 1990 VHS)

[3] *Star Trek 2: The Wrath of Khan*, dir. by Nicholas Meyer (1982; Paramount Pictures, 1985 VHS)

[4] The Olaf Stapledon Online Archive, 'About Olaf Stapledon', http://olafstapledonarchive.webs.com/biography.html (accessed 25 Jul. 2013)

Men[1], in which he suggested that by using electrolysis on the assumed global sea on Venus, it would fabricate oxygen and create a breathable atmosphere for humans. This, as far as I have found, is the first time terraforming was described, and although it was done so in the form of a science fiction book, the author, Stapledon, had some interesting views and philosophies about how humans could, or would, live in the future. In fact, his work was so innovative, that one could almost suggest he had his own ideology of Transhumanism, because in his science fiction work, he wrote of genetic engineering, synthetic cognitive enhancements in pets, and most interestingly of the 'supermind', which was composed of many individual minds into the one conscious form.

Stapledon was a great influence to such writers as *Arthur C. Clarke* and *C. S. Lewis*. His work is quite interesting and must be considered when looking into much of the world of Transhumanism.

In 1951, the aforementioned writer, Arthur C. Clarke, wrote the novel, entitled, *The Sands of Mars*[2], and in the book, the terraforming of Mars occurs. This novel, and many others like it in the science fiction genre can be found throughout the first half of the 20th century, though it quickly became a concept that grabbed the attention of some of the top scientific minds of the era. One notable person was famous astronomer, astrophysicist, and cosmologist, *Carl Sagan (1934 - 1996)*[3], who, in 1961, wrote an article for the journal, *Science*, where he proposed the terraforming of Venus[4].

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[1] William Olaf Stapledon, *Last and First Men* (London: Methuen, 1930) https://en.wikipedia.org/wiki/Last_and_First_Men (accessed 25 Jul. 2013)

[2] Arthur C. Clarke, *The Sands of Mars* (London: Sidgwick & Jackson, 1951) https://en.wikipedia.org/wiki/The_Sands_of_Mars (accessed 20 Jun. 2013)

[3] The Carl Sagan Portal, Duran – Sagan Associates, http://www.carlsagan.com/ (accessed 7 Aug. 2012)

[4] Carl Sagan, 'The Planet Venus', *Science*, 24 Mar. 1961, Vol. 133 No. 3456 pp. 849-858, http://www.sciencemag.org/content/133/3456/849.extract (accessed 3 Aug. 2013)

Sagan suggested that the atmosphere of Venus could be seeded with blue-green algae that would then convert water, nitrogen, and carbon dioxide into organic compounds, which, in time, would create the desirable level of breathable air for humans to sustain. Although his article resulted in many questions and debates surrounding the sulfuric acid composition of the clouds on Venus, plus other obstacles, it nevertheless opened the science community to a new concept that was indeed plausible, with such technologies born out of Project Cirrus (see, **Artificial Clouds & Weather Modification**).

This leads to my belief, explained earlier, that the geoengineering activities happening globally today are indeed a form of terraforming, but not quite the same as what might be done on another planet. The technology used, and the hushed agenda of geoengineering (i.e., chemtrails) basically falls into the same principles of terraforming. And it seems Sagan did not just stop with this idea after his 1961 article - in fact, one can assume that this was a concept he revised and evolved throughout his life.

It was in 1973 that Sagan had his article, *Planetary Engineering on Mars*[1], published in the journal, *Icarus*, wherein he visualized making Mars a habitable planet for humans. What Sagan was proposing and envisioning were, in my opinion, a triggering point for NASA, because it was three years later that the U.S. space agency addressed the issue of planetary engineering in a study. NASA, being shrewd as always, termed this concept 'planetary ecosynthesis'[2]: an interesting way to put it. The amazing part about the study was that NASA *did* conclude that it was possible to make Mars a habitable

[1] Carl Sagan, 'Planetary Engineering on Mars', *Icarus*, 20 Jul. 1973, pp. 513-514, http://media.cigionline.org/geoeng/1973%20-%20Sagan%20-%20Planetary%20Engineering%20on%20Mars.pdf (accessed 3 Aug. 2013)

[2] NASA Ames Research Center, 'On the Habitability of Mars: An Approach to Planetary Ecosynthesis', Scientific and Technical Information Office, National Aeronautics and Space Administration, 1976, Vol. 414 of NASA SP, http://books.google.com/books/about/On_the_Habitability_of_Mars.html?id=JhMgAAAAIAAJ (accessed 3 Aug. 2012)

environment for humans to survive on. That same year, the first conference session on terraforming - then called 'Planetary Modeling'[1] - took place.

At this point, I wonder who is more deserving of the title, 'Father of Terraforming'. Stapledon did write about the idea in several of his novels early on in the 20th century, however, it was *Jack Williamson*[2] who some say coined the term 'terraforming', in his science fiction story, *Collision Orbit*, published in 1942. But, as visionary as they both were, they were science fiction writers, and I feel that Carl Sagan should be given the title because it was through his publications that current science and technology were brought into the spectrum in order to make this a tangible idea. NASA obviously felt that Sagan was on to something, and decided to see where it would lead.

It was in March 1979 that NASA engineer and author, *James Oberg*[3], organized the *First Terraforming Colloquium*. This was a special session held at the Lunar and Planetary Science Conference in Houston, Texas, with a gathering of minds designed to take this technological idea to further reaches beyond what most considered plausible. Terraforming is spoken about the least out of all the Transhumanism technologies, yet, its ideas continue quietly to evolve; and perhaps only do so purposely.

As recently as 2007, scientists gathered in Aspen, Colorado, and after much discussion, decided that Mars *is* absolutely a

[1] Kjetil Gjerde, M.Sc., 'Terraforming – The Modern Alchemy or Tomorrows Engineering Technology?', Biblioteca Pleyades, http://www.bibliotecapleyades.net/universo/terraforming/terraforming06.htm (accessed 3 Aug. 2012)

[2] Wikipedia The Free Encyclopedia, 'Jack Williamson', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Jack_Williamson (accessed 2 Aug. 2013)

[3] James Oberg, 'Profile', http://www.jamesoberg.com/profile.html (accessed 3 Aug. 2013)

terraforming target for the 21st century[1]. This is not an isolated incident, as, during my research, I have discovered other privately funded entities who wish to reach beyond Earth for an alternative destination where human life can thrive. Some are not quite looking to terraform a planet, but are definitely wanting it to have habitable conditions for human life.

One such example is *Mars One*[2], which has a mission objective to establish a privately funded Mars colony on the planet by 2023. It has become so popular worldwide that the organization putting the plan together has received well over 100,000 applicants who want their shot at taking the one-way emigration trip to Mars, of which Mars One plans to broadcast live, 24 hours a day. This would make it the first interplanetary 'reality show' - a televised and on-going *"global media event, from astronaut selection to training, from lift-off to landing. [...]"*

NASA, along with other space agencies, including the European Space Agency, is spending billions to survey, not just planets in our solar system, but relatively nearby Earth-like planets that reside in the *Goldilocks Zone*[3] of the star they orbit around. The Goldilocks Zone is the zone where a planet, close to the size of Earth, is not too close, or too far away, from its own Sun. This desired 'comfort zone', as some astronomers refer to it, is where a planet would most likely have great potential for life to thrive - and even humans to survive on.

Theoretically speaking, if, say, the agencies involved in the secret space program utilized advanced space travel technology to travel to one of these 'Goldilocks' planets for terraforming, it is likely that the amount of time it would take to adjust the

[1] Leonard David, 'Scientist Calls Mars a Terraforming Target for the 21st Century', *Space.com*, 23 Jun. 2007, http://www.space.com/3993-scientist-calls-mars-terraforming-target-21st-century.html (accessed 3 Aug. 2012)

[2] Mars One Foundation, http://www.mars-one.com/en/ (accessed 3 Feb. 2013)

[3] William Harris, Jacob Silverman, 'Are we not the only Earth out there?', HowStuffWorks, Inc., http://science.howstuffworks.com/other-earth1.htm (accessed 3 Aug. 2013)

atmosphere would be greatly reduced with a higher chance of success than if it was to be attempted on a planet like Venus. In the past five years, the world space agencies - and even amateur astronomers - have been finding a massive amount of these types of planets. But the hardline concept and reason for terraforming is to do it within our own solar system, and this is why Mars, and Venus, as well as moons like Titan and Europa have been given special attention by NASA.

Terraforming is quite the paradox for me, for a number of reasons. I can see it being a viably good option to preserve our entire species if our planet should begin to die by natural causes; in this instance, we could embark upon a global mission to colonize another planet once terraforming has been completed and confirmed. I can also understand terraforming if our own planet becomes over-crowded (although, in this instance, we would only have ourselves to blame), but if we make the choice to move on from a disaster or accident created by our own unconscionable activity, we cannot reasonably assume that we would *not* create another situation like it in another cycle upon another planet, and this is why I question our authority to terraform. Are we mature enough, yet, as a species?

Terraforming for colonization purposes brings many issues to the fore that need respectful consideration, including that of the power and control of any new interplanetary colonies. Knowing our history with the already corrupt United Nations and the overtly tyrannical Government of the United States, who would be the most likely candidate for fair leadership? Would, perhaps, a new colony be sponsored or funded and governed by a multi-national corporation like BP Oil, or Monsanto, or even Google? Whilst this sounds dramatic, simply refer to the power structures in place today, and follow the money. All possibilities lead to equally frightening choices.

Resolution begins by taking realistic goals and working together on fixing our global problems here on Earth. Greed, over consumerism, deforesting, population booms, and other

problems that are easily fixed or turned around should be resolved first. The amount of time, effort, money, and man-power utilized in all the technologies of Transhumanism could be combined for creating a much better and wholesome world where people learn how to return to the roots of our ancestors and re-initialize our co-existence with nature. Terraforming is not necessarily an intelligent beneficial solution, as it is a solution of avoidance born out of not wanting to be accountable for our unfortunate ruin.

Virtual Reality

Definition of *VIRTUAL REALITY*

1. an artificial environment which is experienced through sensory stimuli (as sights and sounds) provided by a computer and in which one's actions partially determine what happens in the environment
2. the technology used to create or access a virtual reality

In 1982, the science fiction film, *Tron*[1], was released in theatres. This was a movie with a main plot that involved a virtual reality world, and it created a wave of enticement and absolute fascination of a *concept* that integrated the 'real world' and one of 'digital reality'.

During this same time in the early 1980s the video game industry was still in its early stages but already hooking in the young, the techies, and just about everyone else. Arcades were popping up in most malls world-wide. What movies like *Tron*, and the video game industry offered to the public was a new form of escapism from real life and all its stresses and worries. Yet, as innocent as it may have seemed, something behind closed doors was in development - and had been for quite some time.

This new idea and how it was being developed, as well as its future potential, would soon take the world by storm by creating a cyber-matrix that humanity had never seen before. It would eventually create a prison for all who fell into its trap of fantasy and unlimited access.

Virtual reality can be interpreted in several ways, with the most

[1] *Tron*, dir. by Steven Lisberger (1982; Walt Disney Productions, 1985 VHS)

common being that it requires the use of both computer hardware and software in order for it to be functional, as per the modern definition. However, if you recall from earlier pages, I gave some examples of other technology and methods used by ancient civilizations, and one example included the Egyptians using mechanized statues that priests would climb into, pretending to be Oracles that people would visit for advice.

The ancient Greeks had the Oracle at Delphi, where a priestess known as *Pythia*[1] would reside, seated inside a fissure in the side of Mt. Paranussus. This fissure emitted a gas from deep below the surface that caused the priestess to go into uncontrollable convulsions and speak in wild tongue. She would foretell future events that were said to come straight from the Greek God *Apollo*, predictions including whether or not a King should go to war, among other things.

Other Oracles throughout ancient Greece were utilized in similar ways. This came to be when priests discovered how certain animals, like goats, behaved when exposed to this volcanic gas and decided to capitalize upon it by creating this 'virtual reality' connection between the mortal Oracle, and the Olympian Gods.

Many more examples like the Greek Oracles above can be found in ancient history where tangible tools and natural occurrences were altered into a type of *virtual scenario* in order to fool and manipulate others for steering control and agendas. But where do ancient methods end, and where does the more modern development of virtual reality begin?

Finding the modern origin of virtual reality was not as easy as I had initially thought. It has become obvious to me that depending on which source with vested interest in this technology you research, the person given credit for being the

[1] Ancient-Greece.org, 'Delphi', http://www.ancient-greece.org/history/delphi.html (accessed 5 Feb. 2011)

original innovator or inspiration for virtual reality (VR) will change. Most sources will tell you that the modern origins of VR began in the 1950s, but some believe it all started in the 1960s, and others, as early as the 1930s.

After a lot of reading and cross referencing to find exactly who may have been the modern source of VR, I have decided not to name a specific 'Father of Virtual Reality' because there simply are too many claims. Instead, I will record how it all developed, who the early modern people were, and how they contributed to its evolution.

Italian architect and painter, *Baldassare Tommaso Peruzzi (1481-1536)*[1], created the *Sala delle Prospettive*[2], which was a three dimensional art piece that became the inspiration we began to see in the 1860s in 360-degree panoramic murals which gave the viewer the illusion of actually being inside the mural itself. Some say this is the more modern origin of virtual reality, but other sources state that the modern origins come from *virtual vehicle simulators* in the 1920s that were built for military training.

After an intense search to confirm this, as it is not widely discussed, I finally found one source that gave it verification: a paper by *Jim Baumann*, titled, *Military Applications of Virtual Reality*[3], from the website for the Human Interface Technology Laboratory of the University of Washington. In his paper, Baumann writes how in the late 1920s and 1930s, the Link Company built training simulators to teach military pilots. They were built in a way to give the pilot the most realistic scenario

[1] Wikipedia The Free Encyclopedia, 'Baldassare Tommaso Peruzzi', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Baldassare_Peruzzi (accessed 5 Feb. 2011)

[2] Roma Interactive, 'Hall of the Perspectives', http://www.romainteractive.com/eng/guided_tours/villa-farnesina/hall-perspectives.html (accessed 1 Apr. 2011)

[3] Jim Baumann, 'Military applications of virtual reality', The Human Interface Technology Lab (HITLab), University of Washington, http://www.hitl.washington.edu/scivw/EVE/II.G.Military.html (accessed 29 Jun. 2013)

of actually being in the plane during flight. Even though I found this, and was able to verify it as being fact, I still found a pattern of sources giving original credit to different people and early inventions.

From all my research into the modern origins of VR, I found two names mentioned the most as the originators of this technology. Each did indeed have a huge part in making virtual reality what it is today, and, in my opinion, they certainly both deserve equal credit. The first of the two is *Morton Heilig*[1], who, in the 1950s, developed the Sensorama. Heilig was awarded a patent for his device in 1962, and built the first prototype. The simulator gave the viewer the ability to experience sight, sound, smell, and touch during the course of the movie. It was a big and bulky machine that had the resemblance of a 1980s era arcade video game. It was considered quite the advanced innovation in its time, and certainly was an inspiration for the future of virtual reality.

Then, in 1965, computer scientist, *Ivan Sutherland*[2], who is considered the 'Father of Computer Graphics', wrote, *Ultimate Display*[3], which was about the potential of 3-D computer modeling, in order to create immersive artificial environments. Sutherland would later on, with assistance, create what is widely considered the first HMD (head-mounted display) system that created a virtual reality as *well* as an initial form of 'augmented reality'. However, as with most technologies, once you peel back the layers you do find other claims of credit for contributions into advancing the technology's development, just as I found pertaining to VR/AR.

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[1] The Father of Virtual Reality – Morton Heilig, http://www.mortonheilig.com/ (accessed 28 Jun. 2013)

[2] Wikipedia The Free Encyclopedia, 'Ivan Sutherland', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Ivan_Sutherland (accessed 28 Jun. 2013)

[3] Ivan Sutherland, 'The Ultimate Display', *Proceedings of the IFIP Congress*, 1965, pp. 506–508, http://citeseer.ist.psu.edu/viewdoc/summary?doi=10.1.1.136.3720 (accessed 28 Jun. 2013)

It was in 1961 that the Philco Corporation[1] engineers developed, as other sources claim, the first HMD, known as the *Headsight*. This helmet consisted of a video screen that had a tracking system incorporated into it. While the Headsight was worn, the device was linked to a closed-circuit camera system. It would later be developed further for use by helicopter pilots to aid them while flying in the dark.

It would appear that the development of technology in the field of virtual reality, or augmented reality, was a cooperative development even if the individuals and corporations were not working hand in hand. All the development that was conducted in the first half of the 20th century only assisted in the acceleration of this technology that reached new heights over and over again from the mid-1970s up to present time. All one needs to do is type into their search engine, 'virtual reality' or 'augmented reality', and you will find enough data to keep you busy for years.

Both virtual, and augmented reality, whilst not the same, are from the same 'family' and you could consider them sister technologies as they have the same origins with slight differences. One definition of AR that I consider to be the best comes from, *Augmented Reality: An Overview, Chapter 1* by *Julie Carmigniani* and *Borko Furht*[2]. They define augmented reality as:

"[A] real-time direct or indirect view of a physical real-world environment that has been enhanced/augmented by adding virtual computer-generated information to it. AR is both interactive and registered in 3D as well as combines real and virtual objects. [...]"

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[1] Michael Marano, 'A comprehensive timeline of virtual reality up to Ron Moore's Virtuality', *Blastr*, 24 Jun. 2009, http://www.blastr.com/2009/06/a_comprehensive_timeline.php (accessed 28 Jun. 2013)

[2] Florida International University, Partnerships for International Research and Education, 'Journals', http://pire.fiu.edu/publications/ (accessed 28 Jun. 2013)

Basically, what they have explained, is that augmented reality differs from virtual reality because with AR you have a mix of real and virtual objects at your disposal during the simulation, and with virtual reality, it is entirely computerized.

Both VR and AR have swept the world of technology, reaching every industry, from cell phone companies, to the entertainment industry, and on to the military, and elsewhere. Universities have laboratories solely devoted to its research and development, and powerhouses like DARPA have been involved since day one. Medical companies have been spending money in development of this technology for purposes that could be interpreted as being of *some* value, but then we see how the entertainment industry and virtual reality games have not only fractured people mentally, but caused a new pandemic globally that is taking over people in mind, body, and even spirit.

One specific entity I have written about before was featured in part one of a documentary I recommend, called, *Visions of the Future: Part 1 The Intelligence Revolution*[1]. In the documentary, Theoretical Physicist, Futurist, and Transhumanist spokesperson *Michio Kaku*[2], takes the viewer deep into the world of virtual and augmented reality. One specific focus is the online world of Second Life[3]. Second Life is a virtual online role playing game where people can create their own alter cyber-persona with an Avatar. They can do whatever they choose in this world, like dating, shopping, and even marrying and having virtual children. You will be blown away by how much of an impact Second Life has had. People have become so sucked into it, that they live almost an uninterrupted sedentary lifestyle. Children have jumped into it fully, and now research and independent studies are showing

[1] Top Documentary Films, 'Visions of the Future', http://topdocumentaryfilms.com/visions-future/ (accessed 9 Feb. 2011)

[2] Welcome to Explorations in Science with Dr. Michio Kaku, http://mkaku.org/ (accessed 29 Jun. 2013)

[3] Second Life, Linden Research, Inc., http://secondlife.com/ (accessed 6 Apr. 2011)

that both the young and adults are losing, exponentially, *basic social skills*, and the loss of want for physical interaction.

There are a number of dangerous side-effects due to continuous use and interaction in virtual reality worlds like Second Life, such as obesity; poor diet; lack of sunlight; lack of exercise; becoming withdrawn from society in the real world; loss of sexual appetite; loss of social skills; and, the inability to participate in (or the conscious choice of avoiding) real life, altogether - to name a small few. This technology has been put into the faces, and desires of so many people using propaganda with flashy advertising, and the strong arm of influence by the mega-octopus entertainment industry.

Today, just about every movie that is released - and specifically those aimed at children - is made in 3-D. Televisions are marketed specifically with 3-D technology and even 'Smart' phone companies are looking to incorporate VR and AR technology for the next supposed great thing. There are many companies who do nothing but develop and sell VR/AR hardware and software for gaming, medical, and military use.

What ever happened to *tangible* real world experiences? Social engineering by multinational corporations, the entertainment industries, and Google, do *not* want people away from the theatres, televisions, 'Smart' devices, or video games, because then they would become obsolete and not be able to control the masses of 'transhuman sub-humans', who have been engineered to consume and interface within the worlds of VR and AR.

I am not going to play the role of the supporter of this technology by giving possible examples of how it could benefit civilization, because with EVERY single paper, study, documentary, and publication I have read, or watched, I have seen *far more cons* than pros.

Take a look at those who attend technology conferences, or frequent big box stores who promote the latest electronics, and observe those who work in the departments selling

entertainment products. Ask yourself if they appear healthy, and question whether their misshapen bodies are due to eating GMO fast food, or from other things, because cooking and learning healthy eating habits takes time away from 'virtual reality fun' - a result of which becoming fat quickly ensues when their only 'exercise' might be in the form of controlling a virtual character in a virtual daze.

Technology crowds often have glazed looks in their eyes, but not resulting from any disease like glaucoma - rather, their 'distance' stems from something much like staring at a computer screen for an average of 6-8 hours a day (or more). Could their almost sociopath-like behavior be attributed to an unhealthy childhood, or could it be more accurately described as the result of losing basic social skills due to interfacing through a virtual 'un'-reality world?

These are questions I ponder, and you should consider them as well. Life used to be all about going to the beach; having a get-together on the weekends with family and friends; social interaction at the local pub, enjoying a pint and a game of Pool; exploring a national park, or ghost town, *just because*; and, all the while getting fresh air and good exercise. Life is supposed to be about getting outside and enjoying our planet for all her wonders and possibilities.

I see nothing wrong with those who utilize computers as a powerful tool for obtaining the worlds knowledge at one's fingertips, to assist in the growth and education of our current and next generations, and those who use technology for the purposes of communication. But knowing that there are cons that are always lurking behind such technologies, particularly when regarding them in terms of Transhumanism, is something that we must respect. There is a clear and present danger of H+ taking us over, and so we *must* maintain a healthy balance by getting outside and living REAL life.

Personally, I stay away from VR and AR, which I believe has led to a part of me staying strong physically, as well as

mentally. I do not fall prey to consumerism and technology propaganda; and to truly be categorized as a *human* and not a sub-human, you must try and do the same. Whilst people might need their 'toys', it is when the people and the toys begin to *interface* to the point of no return that the person becomes swallowed up and integrated into the bio-cyber matrix world of Transhumanism, becoming 'ruled over' by a network that turns their freedom into a virtual or augmented 'reality'.

ENTITIES LARGELY ACCOUNTABLE

Agencies widely responsible for the innovation and implementation of technologies related to the advancement of the H+ agenda

DARPA

In 1958, then U.S. President Dwight D. Eisenhower, a retired five star U.S. Army General who led the allied forces on D-Day, created the Advanced Research Projects Agency (ARPA)[1]. A little over three years later, during a televised farewell speech, he warned the American people of the ever growing Military-Industrial Complex. His remarks concerning it are, to say the least, foreboding. Here is an excerpt from his speech:

"In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the Military-Industrial Complex. The potential for the disastrous rise of misplaced power exists, and will persist. [...]" [2]

Were these the words, from one of the most powerful men in his time, spoken by a President admitting to a mistake he made back in 1958? Had he seen how ARPA, in its infancy, was already growing into a complexity of power that even he saw as a mistake and a threat to those he swore to protect? I have always found it interesting that ARPA was created by Eisenhower, and yet, toward the end of his presidential rule, he seemed to regret it. Why? We may never know exactly what it was that he was thinking prior and during that farewell speech, but perhaps if he was alive today and saw what has become of ARPA, he would see that his warning was, indeed, a modern prophecy.

ARPA was created in 1958, but it went through some name

[1] DARPA, 'ARPA-DARPA: The Name Chronicles', U.S. Department of Defense, http://www.darpa.mil/About/History/ARPA-DARPA__The_Name_Chronicles.aspx (accessed 19 Jul. 2011)

[2] Michigan State University, 'Military-Industrial Complex Speech, Dwight D. Eisenhower, 1961', Public Papers of the Presidents, Dwight D. Eisenhower, 1960, p. 1035- 1040 http://coursesa.matrix.msu.edu/~hst306/documents/indust.html (accessed 30 Mar. 2011)

changes during the next few presidential terms. The reasoning given for its creation was as a direct response to the over propagandized 'Cold War' against Russia, then the Soviet Union. In fact, the catalyst for its creation is said to be when Russia launched Sputnik 1 into space in 1957. The mission of ARPA was clear, and on its website, it states:

"DARPA's original mission, established in 1958, was to prevent technological surprise like the launch of Sputnik, which signalled that the Soviets had beaten the U.S. into space. The mission statement has evolved over time. Today, DARPA's mission is still to prevent technological surprise to the U.S., but also to create technological surprise for our enemies. [...]" [1]

I believe that, ultimately, the decision of the final name for this agency was influenced by the upper tiers of the Pentagon and the private military-industrial corporations who wished to have further opportunities to tap into the massive coffers of the military's budget, since ARPA was the responsibility of the Department of Defense. It was in March of 1972 when the word 'Defensive' was added to ARPA, however, the agency removed it in February of 1993. In March of 1996, it was finally and permanently included again, and 'DARPA' is how we know it today.

DARPA[2] has been in the research and development business for the Department of Defense for over 50 years, and though it began with just a handful of missions and projects it has turned into the world's largest, most influential, and heavily funded military agencies. To get into intricate detail and discuss all of what they have done, are doing, and yet plan to do in regards to the complexities of Transhumanism, DARPA would require its own voluminous book. Instead, we will spend the rest of this

[1] Wikipedia The Free Encyclopedia, 'DARPA', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/DARPA (accessed 12 Jun. 2013)

[2] DARPA, U.S. Department of Defense, http://www.darpa.mil/

section painting a clear enough picture of the agency, in order to know where to focus any further research.

To start with, DARPA is massive. In my five years of exhausting research into this agency, I feel I have yet to uncover much more. At the time of writing, my own personal documentation and data archive on DARPA consists of 2,697 files categorized into 320 folders. This agency has an average annual budget of $2.8 billion USD, give or take a few million[1]. That, of course, is the budget told to the public, Congress and Senate, but I believe it to be much higher. I say that, because in my research, I have found many R & D Solicitations for outside contracts of private companies and research institutes that were quite vague and difficult to follow up on. That is out of the norm of most DARPA solicitations, and I see these as anomalies that require further investigation.

In 2012 alone, the estimated black budget, also known as the Classified Projects Budget, is reported to have been $51 billion USD[2]. However, I must insist that I do know that the budget is much greater than that. Some sources even believe the annual black budget reaches close to a trillion dollars per year. This is easily done when our fiat currency is simply created by the push of a button.

In breaking down the infrastructure of DARPA, I realize that most who will be reading this are not aware of the extent of the technologies that DARPA is involved with. If you wish to explore what DARPA is all about - at least what they share publicly - their website will give you an overview. Be ready to spend a few hours exploring it if this topic grabs your interest.

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[1] Noah Shachtman, 'Darpa Dodges Obama Budget Death Ray, Keeps Its $2.8 Billion', *Wired.com*, 14 Feb. 2012, http://www.wired.com/dangerroom/2012/02/darpa-budget-death-ray/ (accessed 15 Feb. 2012)

[2] Robert Beckhusen, Noah Shachtman, 'See for Yourself: The Pentagon's $51 Billion 'Black' Budget', *Wired.com*, 15 Feb. 2012, http://www.wired.com/dangerroom/2012/02/pentagons-black-budget/ (accessed 15 Feb. 2012)

The Adaptive Executive Office (AEO)[1]

This is the office that prepares and coordinates the field trials of advanced technology developed by DARPA. Prototype technology is tested by those who would be using it on the battlefield, and feedback is given for AEO to process and see how this technology can be inserted rapidly into the military for its specific application. AEO, currently, according to their website, is working on two projects: CROSSHAIRS, and Advanced Sighting System (One-Shot).

Defense Sciences Office (DSO)[2]

This is the first of three of DARPA's offices that fascinates me the most and anyone who looked into them would understand why: all three have a lot of highly classified projects, and are kept quite secretive. Even the description of the DSO as shown on their website page is brief, and kind of vague. It states:

"DARPA's Defense Sciences Office (DSO) programs bridge the gap from fundamental science to applications by identifying and pursuing the most promising ideas within the science and engineering research communities and transforming these ideas into new DoD capabilities. [...]"

Considering that the DSO is one of DARPA's largest offices, one would expect their description to be a little more in-depth. Regardless of this glitch, I have still found an abundant amount of data about the DSO.

It is necessary to explore the DSO webpage yourself to grasp how complex it is, along with the technology they focus on - and I cannot emphasize this enough. The main focus areas of the DSO are Physical Science; Neuroscience; Materials;

[1] DARPA, AEO, http://www.darpa.mil/Our_Work/AEO/

[2] DARPA, DSO, http://www.darpa.mil/Our_Work/DSO/

Mathematics; Training/Human Effectiveness; and, Biology. Each of the DSO focus areas have their own projects, so this rabbit hole is deep and wide. I will not even attempt to list all of their programs - which is what they call their 'projects', or 'solicitations' - but I will include the following eight, for a broad idea of what they do, but pay close attention to what they are called:

- 7-Day Biodefense
- Advanced Structural Fiber (ASF)
- Blood Pharming
- Autonomous Robotic Manipulation (ARM)
- H1N1 Acceleration (BLUE ANGEL)
- Nano Air Vehicle (NAV)
- Prophecy (Pathogen Defeat)
- Systems of Neuromorphic Adaptive Plastic Scalable Electronics (SYNAPSE).

To truly appreciate the magnitude of the DSO, you simply must explore it on your own and be ready to see how much it smells of Transhumanism.

Information Innovation Office (I2O)[1]

To quote the first paragraph of the I2O homepage:

"I2O explores game-changing technologies in the fields of information science and software to anticipate and create rapid shifts in the complex national security landscape. Conflict can occur in traditional domains such as land, sea, air, and space, and in emerging domains such as cyber and other types of irregular warfare. I2O's research portfolio is focused on anticipating new modes of warfare in these emerging areas and developing the concepts and tools necessary to provide decisive advantage for the U.S. and its allies. [...]"

[1] DARPA, I2O, http://www.darpa.mil/Our_Work/I2O/

In other words, this is the office that U.S. Army Cyber Command (CYBERCOM)[1], and all other branches of the DoD, and other government agencies, look towards when it comes to the information side of war - both offense and defense. One must wonder if the NSA's PRISM was born out of the minds that work at the I2O. If you do visit the I2O homepage and read their 'About' section, you will also see that they are in the business of all aspects of information technology.

The focus areas of I2O include: Cyber; Social Networks; Computational Social Sciences; Language Transparency; Edge Finding; and, Training/Education. They have quite a lot of programs, and some of those are: Plan X; Mind's Eye; Machine Reading; ENGAGE; BLADE; ARGUS-IR; and, ADAMS. Each of these have their own page on the I2O website. You will be shocked and amazed when you discover what these projects are about.

Microsystems Technology Office (MTO)[2]

Of the three offices I had mentioned being most interested in, MTO comes in at number two. This secretive office deals in several technologies that are categorized under Transhumanism, including those of nanotechnology, biotechnology, and brain-machine interfacing. Some of the programs I have studied that MTO is involved in would be considered as coming right out of a science fiction movie, to some, but this technology is real, and happening now.

The main focus areas of the MTO are Biological Platforms; Computing; Electronic Warfare; Manufacturing; Novel Concepts; Photonics; Position-Navigation-Timing; and, Thermal Management. This is where we see such things as

[1] U.S. Army Cyber Command/U.S. 2nd Army, http://www.arcyber.army.mil/

[2] DARPA, MTO, http://www.darpa.mil/Our_Work/MTO/

micro-drones, like the *Bionic Mosquito Drones*[1], and *Smart Dust*[2]. If a company, or research institute, is developing some kind of drone or autonomous robot system, then it is most likely that DARPA is either interested in their work, or has granted them a contract through one of their solicitations. We see examples of this with research and development from such entities as Boston Dynamics, MIT (Massachusetts Institute of Technology), BAE Systems, and SRI (Stanford Research Institute).

Here are a few of the more alarming MTO programs I keep a regular eye on: Reliable Neural-Interface Technology (RE-NET); STARNET; Nano Electro Mechanical Computers (NEMS); In Vivo Nanoplatforms (IVN); EXCALIBUR (this is not a joke, and is, in fact, a program for handheld laser weaponry), and the list expands from there.

One unique endeavour coming out of the MTO is the Nature-Inspired Acoustic Sensor System, which, in short, is looking to mimic certain unique abilities in regards to the acoustics of insects, and then synthesizing them. Like the name of the office describes, this office is in the business of the really small stuff, and they have some incredible programs in progress right now.

Strategic Technology Office (STO)[3]

Anyone who may come across the section belonging to the STO on DARPA's website, will read a short description of what their role is - but do not be convinced by this, because the STO has its hands in some very big things. The following is the first of

[1] Terrence Aym, 'DARPA creating super bionic insects', *Helium*, 12 May, 2012, http://www.helium.com/items/2325145-darpa-creating-super-bionic-insects (accessed 17 Jun. 2012)

[2] University of California – Berkeley, 'SMART DUST – Autonomous sensing and communication in a cubic millimeter', Supported by the DARPA/MTO MEMS program http://robotics.eecs.berkeley.edu/~pister/SmartDust/ (accessed 12 Dec. 2010)

[3] DARPA, STO, www.darpa.mil/Our_Work/STO/

only two short paragraphs directly from the STO, describing what they do:

"The Defense Advanced Research Projects Agency's (DARPA) Strategic Technology Office (STO) is focused on technologies that enable fighting as a network to increase military effectiveness, cost leverage, and adaptability. [...]"

Whilst short and sweet, I will explain in detail why it is not so simple. Most of what you may come across when browsing through their programs are wireless internet communications based research and development, but the STO has been working heavily in high altitude technology as well as for the U.S. Navy in the area of underwater technology: from stealth submarines, to high altitude air-to-air communications systems that would literally web around the planet using integrated RF waves.

The focus areas of the STO almost completely describe themselves by their names alone: Battle Management, Command and Control (BMC2); Communications and Networks; Intelligence, Surveillance, and Reconnaissance (ISR); Electronic Warfare (EW); Positioning, Navigation, and Timing (PNT); and, Foundational Strategic Technologies and Systems. It is within these types of focus areas where we can see technology that is, and will be, developed further for the utilization in autonomous system robotics (artificial intelligence). A few of the programs they can be given credit for, are: 100GB/S RF Backbone (100G); Advanced Wireless Networks for the Soldier (AWNS); Counter-Sniper Program (C-SNIPER); Distributed Agile Submarine Hunting (DASH); High Energy Liquid Laser Area Defense System (HELLADS); TANGO BRAVO; and, the Underwater Express, to name a few.

If you want to see what kind of defensive and offensive communication, stealth and surveillance/monitoring technology DARPA is working on, then I recommend looking into the STO.

Tactical Technology Office (TTO)[1]

This is the third and final office I have the most interest in due to its direct approach to creating highly advanced technology for the massive U.S. Military war machine. To explain the TTO to someone who has no knowledge of it, I compare it to the movie, *Terminator*. TTO is the real life CYBERDYNE Corporation in the movie that developed the SKYNET artificial intelligence system, which, of course, becomes self-aware and decides that humans need to be eradicated. In papers I have written in the past, I have shown side by side images of the Terminator robot from the movie, in comparison to the Terminator-like robots that DARPA is working on in their TTO. The TTO leaves no fighting platform untouched in its efforts to become supreme over the rest of the world.

They may have only four focus areas, but the TTO cover a vast area in technology. The areas include Ground Systems, Maritime Systems, Air Systems, and Space Systems. One might even laugh at some of the names of their programs, but once you have read the descriptions, all humor will be lost. The TTO has a direct linkage to Transhumanism technology in the areas of cybernetics, robotics, artificial general intelligence, and brain-machine interfacing, or as the TTO calls it, multi-modal human-machine interaction, optimized for human physiology.

DARPA spends a great amount of time and money on robotics, and it is the job of the TTO to oversee this with such programs like the DARPA Robotics Challenge (DRC). The DRC is so complex that it has its own website. Search for it by looking up its full name, but in short, its objective is the following:

"The primary technical goal of the DRC is to develop ground robots capable of executing complex tasks in dangerous, degraded, human-engineered environments. [...]"

[1] DARPA, TTO, www.darpa.mil/Our_Work/TTO/

This is just scratching the surface of what the TTO is working on, or has already developed which is currently in use by the military. Hold on tight and pay attention to these programs from the TTO that I list next, because they are wild and troubling: Adaptive Vehicle Make (AVM); Anti-Submarine Warfare (ASW); Continuous Trail Unmanned Vessel (ACTUV); GALILEO; Legged Squad Support System (LS3); Magneto Hydrodynamic Explosive Munitions (MAHEM); The Manufacturing Experimentation and Outreach (MENTOR); System F6 (allegedly has been junked due to cost, however, I have found no definitive proof yet); Tactically Exploited Reconnaissance Node (TERN); and, VULTURE.

That list should get you deeply prepared to research the world of the TTO.

Conclusion

This section has literally only scratched the surface of DARPA, but in such as a way as to assist in creating a mosaic of, not only how complex DARPA is, but, the direct relation it has to technology promoting Transhumanism. Spending even just five minutes searching the internet using the keyword 'DARPA' will bring you into an endless amount of articles and reports discussing something else that they have their hands in. My own articulate research into this agency continues to throw up more and more news and credible reports, practically daily, detailing their latest work.

The agency has grown so big that Russia has now decided to create its own version of DARPA[1]. Just as DARPA is overseen by the Department of Defense, the Russian version will be the *Defense Ministry Future Research Fund*. This is a telling sign that Russia is aware of DARPA's fast advancement, and

[1] RIA Novosti, 'Russia Launches 'DARPA' R&D Fund', RIA Novosti Website Group, 17 Apr. 2013, http://en.rian.ru/military_news/20130417/180691846.html (accessed 17 Apr. 2013)

obviously feels it poses a great concern. I could comfortably write an entire book on DARPA, time permitting, but for the moment, I recommend a serious look even further into this agency for yourself.

DARPA is the global leader in military defensive and offensive technology. Even more concerning, is their extremely vested interest in the Transhumanism technologies mentioned already. The somewhat 'enablers', and overtly 'humanitarian' entities involved in Transhumanism technology concerned about development for the medical, social networking and autonomous fields is but one thing - nearly almost a side note - but when DARPA is so overtly involved, we, still remaining 'pure humans' must take note.

FESTO

FESTO[1] is a company I have written about and researched in depth for many years. It is a global leader in bionics, micro technology and automation technology. The company was founded in Germany in 1925, and has since grown to having 59 national companies with over 250 branch offices in 176 countries. They hold 2,800 patents worldwide as well.

It is their Bionic Learning Network[2] that holds the most interest for me, although FESTO is involved with a vast amount of technology in the fields they specialize in. But taking inspiration from the animals we share this planet with, they have created such bionic creatures as the *AirRay*, *AirJelly*, *AquaPenguin*, and most famously, their very own *SmartBird*. These are just a few examples, but they have created many more.

I have an interesting view when it comes to FESTO, as they are not a company I have ever spoken negatively about. They are always working on innovative technology and have built some really spectacular creations, and for this reason, they have caught the interest of the U.S. Military, as well as other militaries around the world. The military is looking at them as a resource for surveillance drones, and one can understand why: if you watch a video of their SmartBird from a distance, it looks and flies just like a seagull, and is quite amazing. FESTO has also designed aquatic bionics that can manoeuvre underwater like the real thing: their *AquaJelly* is one such example.

Until otherwise given reason, I see the company in the same light as an inventor with good intentions, committed to a level of excellence within their work. Unfortunately for FESTO,

[1] FESTO AG & Co. KG, www.festo.com

[2] FESTO, Bionic Learning Network, http://www.festo.com/cms/en_corp/9617.htm (accessed 1 Apr. 2011)

though, they are being slowly shuffled in a direction that opposes their own. Openly marvelled, FESTO are likely being advised by those from external ranks to condition them to believe that, should they allow the government to award them with a contract, FESTO's technological advances could and will benefit, and help to serve, their country. Little does the inventor know that once it gets into the hands of the wrong people within military hierarchy FESTO's products will simply be weaponized and used for the war machine, or even used domestically - much like what is seen in many movies that depict this exact scenario.

With such long standing credentials, and spanning globally the way it does, FESTO is simply at risk of having those in control of the company tempted by large money-making government and military contracts. It does have some already, but in no way is it comparable to other global companies in this field, such as BAE Systems, or SERCO. To reiterate what I have stated before, I have no issue with technology as long as it is not utilized to expand the over-domineering war machine of imperialistic countries like the United States, or utilized for the progression of Transhumanism. FESTO is a world leader in technologies categorized within Transhumanism. This is something we simply cannot ignore and it is of great value to once in a while see what they are currently developing: not to attack the corporation, but to always try to be one step ahead.

It was important to mention them briefly, because although they are certainly not an overtly promoting Transhumanism based corporation, they do work within the confines of it. In no way would I put them at the same level as the notorious agency known as DARPA.

To learn more about FESTO, their innovations, and their projects, please take the time to review their publications, digital brochures, videos, and all other information catalogued on their website. I encourage you to look specifically at their Bionic Learning Network section, where you will find exactly what the military is so interested in.

TRANSHUMANISM'S BIG TEN

A brief introduction to the top ten most influential people of today, including their history, qualifications, and contribution to the various branches of the Transhumanism construct

PREFACE

I want to first make it clear to the reader that I have never spoken to the people who will be discussed in this chapter, and as a man of integrity, I do not make statements on a person's character, or views, unless it is in response to something they have stated.

My intention is not to slander these people, but to simply lay open the facts of who they are, explain their role in the Transhumanism construct, and detail why it is I feel these individuals need special attention in this paper.

These top ten Transhumanists and their influential roles in this movement may or may not include the best intentions for society, but their ideologies, philosophies, papers and other works, as well as their public statements, have led me to have a higher level of concern and question regarding their views. I feel, though, it is up to each person reading this to make up their own mind and look into those featured here on their own.

While some readers might disagree with what I have to say, and others may not, my goal is to bring awareness to these individuals and why they matter: a crucial task considering their impact in the Transhumanism movement, and one that I set out to wholly accomplish in the pages following.

Sir Julian Sorell Huxley

Grandson of *T.H. Huxley*[1] (a devoted supporter of *Charles Darwin*, and whom coined the term 'agnostic'), and the brother of famous writer *Aldous Huxley*[2] *(*author of *Brave New World)*[3], *Julian Huxley (1887-1975)*[4] followed in his grandfather's footsteps and became a biologist. He is most famously known for becoming the first Director-General of UNESCO[5].

A simple search online will point you towards many references and papers written about Julian himself; and not just on neutral websites, but in abundance on sites dedicated to the topics of Transhumanism and Eugenics.

Julian worked with many influential people, such as when he assisted *H.G. Wells*[6] in the 1927 book, *The Science of Life*[7]. But what Julian is most famous for is coining the term 'Transhumanism'[8], as well as the very influential papers he wrote discussing education, sex, race, and eugenics. The most well-known include the 1933 paper, *The Vital Importance of*

[1] Clark University, created by Professor Charles Blinderman and Professor David Joyce, 'The Huxley File', http://aleph0.clarku.edu/huxley/ (accessed 10 May 2013)

[2] Huxley.net, 'Aldous Huxley', BLTC Research, http://huxley.net/ah/ (accessed 10 May 2013)

[3] Same source as listed in footnote 9 on page 8

[4] John Timson, 'Portraits of the Pioneers: Sir Julian Huxley, FRS', *Galton Institute Newsletter*, Issue Number 35, Dec. 1999, http://www.galtoninstitute.org.uk/Newsletters/GINL9912/julian_huxley.htm (accessed 10 May 2013)

[5] UNESCO World Heritage Centre, http://whc.unesco.org/

[6] Wikipedia The Free Encyclopedia, 'H.G. Wells', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/H._G._Wells (accessed 10 May 2013)

[7] H.G. Wells, Julian S. Huxley and G.P. Wells, *The Science of Life* (UK: Cassels, 1929) https://en.wikipedia.org/wiki/The_Science_of_Life (accessed 10 May 2013)

[8] Julian Huxley, *Transhumanism* (*In New Bottles for New Wine*, London: Chatto & Windus, 1957, pp. 13-17) http://www.transhumanism.org/index.php/WTA/more/huxley (accessed 10 May 2013)

Eugenics[1]; his publication of goals for UNESCO, entitled, *UNESCO: Its Purpose and Its Philosophy*[2]; and, the UNESCO 1951 paper, *Statement on Race*[3].

Julian's views on eugenics were well publicized. In his 1933 paper, *The Vital Importance of Eugenics*[4], Julian outlined what he felt were the principle goals for this to be effective. The following is an excerpt taken from the website, http://julianhuxleyeugenics.blogspot.com.

"

Sterilization of the unfit and identification of carriers of defective genotypes

Huxley argued that the principle goal of eugenics in the short term should be to ensure that mentally defective individuals cease having children. He advocated in particular for:

- *Prohibition of marriage of the unfit*
- *Segregation of institutions containing degenerate individuals*
- *Sterilization of the unfit*

However, Huxley was not particularly concerned with the specifics of how short-range eugenics were implemented, so long as degenerate individuals were stopped from reproducing as quickly as possible. [...]"

I believe that some of the more 'progressive' Transhumanistic

[1] The Life and Legacy of Julian Huxley, 'Huxley and Eugenics', http://julianhuxleyeugenics.blogspot.com/p/huxley-and-eugenics.html (accessed 10 May 2013)

[2] Julian Huxley, *UNESCO: Its Purposes and Its Philosophy*, (Preparatory Commission of UNESCO; 1946) UNESCO, http://unesdoc.unesco.org/images/0006/000681/068197eo.pdf (accessed 10 May 2013)

[3] Wikipedia The Free Encyclopedia, 'The Race Question', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/The_Race_Question (accessed 10 May 2013)

[4] Sarah C. Bates, Mary G. Winkler and Christina Riquelmy, *A Guide to the Papers of Julian Sorell Huxley* (Houston: Rice University, 1987) http://scholarship.rice.edu/handle/1911/27446 (accessed 10 May 2013)

views of Julian's became the influence, in some manner, for his brother's epic novel, *Brave New World*. If you have read the book, you can certainly see elements of Transhumanism as we see it today; and with a brother like Julian, Aldous had easy access to someone who had a unique view of the future of humankind. Take this passage, for example, from Aldous' book:

"Two thousand pharmacologists and bio-chemists were subsidized. Six years later it was being produced commercially. The perfect drug. Euphoric, narcotic, pleasantly hallucinant. All the advantages of Christianity and alcohol; none of their defects. Take a holiday from reality whenever you like, and come back without so much as a headache or a mythology. Stability was practically assured. [...]"

With overtly Transhumanistic characteristics, the above paragraph is just one of many that can be found. I cannot say if Aldous shared his brother's views precisely, but the influence is quite apparent.

There is no doubt in my mind that Julian Huxley was one of the founding fathers of eugenics, who became an inspiration, even if miniscule, for the Human Genome Project. This is the man who did coin the term 'Transhumanism' in modern times, and can easily be credited for having a huge part in launching this movement - even if it was just in the areas of genetics and biotechnology. His name and legacy as a Transhumanist will live on, and I can only imagine that if a Hall of Fame was ever erected for this movement, Julian Huxley would be the first to be etched in gold.

In closing, it seems appropriate to leave you with one more thing to think about regarding Julian and his views on Transhumanism. The following is an excerpt from an essay Julian wrote in *New Bottles For New Wine,* entitled, *Transhumanism*, that leaves those of us who understand these dangerous waters with a profound and unforgettable quintessential statement:

"I believe in Transhumanism: once there are enough people who can truly say that, the human species will be on the threshold of a new kind of existence, as different from ours as ours is from that of Peking man. It will at last be consciously fulfilling its real destiny. [...]"[1]

[1] Julian Huxley, *Transhumanism* (*New Bottles for New Wine*, pp 13-17. London: Chatto & Windus, 1957) Huxley.net, http://www.huxley.net/transhumanism/ (accessed 10 May 2013)

Dr. Cynthia Breazeal

Associate Professor of Media Arts and Sciences at the Massachusetts Institute of Technology (MIT), *Dr. Cynthia Breazeal* founded and is Director of the Personal Robots Group at the Media Lab[1]. She is considered by most as a pioneer of social robotics and human robotic interaction, and wrote the book, *Designing Sociable Robots*[2]. Dr. Breazeal has published well over 100 articles in journals, and spoken at conferences, covering autonomous robotics, artificial intelligence, human robot interaction, and robot learning.

Also serving on editorial boards in the areas of autonomous robots, affective computing, entertainment technology, and multi-agent systems, Dr. Breazeal acts as a member of several other advisory boards as well in the field of science. After looking into all of her projects that I was able to find information on, it is quite clear that her main focus is artificial intelligence and human-robot interaction. Her projects range from entertainment and 'companionship' for children, including *Huggable*[3] plush robots; theatre entertainment such as *Interactive Robot Theater*; and a computer monitor that interacts with its human counterpart, called *RoCo*.

Dr. Breazeal is a kind of 'superstar' in the world of Transhumanism, better known as *The Singularity*, which is no understatement. She has been featured in Time magazine; TED; PBS Kids; DIY BioMechanics; Slate.com; and more. She also has quite the filmography resume as well, with such

[1] Dr. Cynthia Breazeal, MIT, Personal Robotics Group, http://web.media.mit.edu/~cynthiab/ (accessed 7 Feb. 2011)

[2] Dr. Cynthia Breazeal, *Designing Social Robots*, (Intelligent Robotics and Autonomous Agents series) (A Bradford Book, 2004), http://mitpress.mit.edu/books/designing-sociable-robots (accessed 16 Jul. 2011)

[3] Dr. Cynthia Breazeal, Research, 'Huggable', http://web.media.mit.edu/~cynthiab/research/research.html (accessed 15 Jul. 2011)

documentaries as, *The Singularity Is Near* (2010)[1]; *Sentient Machines: Robotic Behavior* (2004)[2]; and *Love Machine* (2002)[3], to name just a few. Her influence and revolutionary work in the fields she specializes in has certainly had an impact in the world of Transhumanism, as her resume undeniably proves.

Dr. Breazeal's work revolves quite significantly around children. After listening to her speak, and reading transcripts of her talks, I can conclude that she seems quite excited, motivated, and genuine in her ideas for the future. I do not think she is some 'evil, mad scientist' wanting the world controlled by AI robots - in fact, she gives me the sense that she really wants to help. My concern is that of taking great *classic* ideas and hybridizing them into a more cybernetic platform. Perhaps this is better understood after reading her thoughts on the matter.

The following excerpts are from a transcript I found on sweetspeeches.com, and the presentation is titled, *The Rise of Personal Robots*[4].

"The last thing I want to talk about today is the future of children's media. We know that kids spend a lot of time behind screens today, whether it's television or computer games or whatnot. My sons, they love the screen. They love the screen. But I want them to play; as a mom I want them to play like real world play. And so I have a new project in my group I wanted to present to you today called Playtime Computing that's really trying to think about what's so engaging about digital media and literally bring it off the screen, into the real world of the

[1] *The Singularity Is Near*, dir. by Anthony Waller, Toshi Hoo and Raymond Kurzeil (2010; Fighting Ant Productions, 2012 DVD)

[2] *Sentient Machines: Robotic Behavior*, dir. by Mark Rance (2004; 20th Century Fox, 2011 DVD)

[3] *Love Machine*, dir. by Peter Asaro (2002; Kaiczech & Savario Productions, 2011 TV)

[4] SweetSpeeches, 'The Rise of Personal Robots', 1 Dec. 2010, http://www.sweetspeeches.com/s/1925-cynthia-breazeal-the-rise-of-personal-robots (accessed 21 Jun. 2013)

child, where it can take on many of the properties of real world play. So here's the first exploration of this idea, where characters can be physical or virtual, and where the digital content can literally come off the screen, into the world and back. I like to think of this as the Atari Pong of this blended reality play. [...]"

"Another important idea is this notion of persistence of character across realities. So changes that children make in the real world need to translate to the virtual world. [...]"

"So we've been exploring with a lot of ideas in telepresence and mixed reality to literally allow kids to project their ideas into this space where other kids can interact with them and build upon them. I really want to come up with new ways of children's media that foster creativity and learning and innovation. I think that's very, very important. [...]"

Dr. Breazeal sounds like a dedicated and genuine person with her passionate desire to help children have a better future. If I did not know a thing about the dangers of Transhumanism, I might be excited about what she has to say.

The late, great George Carlin made quite the point in his comedy skit when he often posed the question asking 'what the hell happened' with 'putting a kid in the front yard and giving them a stick?'. He would then ask the audience if 'they' even had sticks anymore. He would continue on, but his comical, yet, crucial point, was that society was losing something very important. George was insinuating that the digital world is usurping the days of individual creativity and imagination of children, as well as adults.

What good would this world be if our individual thoughts, imagination, coordination, and playful development involved the presence and the companionship of an artificially intelligent robot? Clearly, something intimate and genuinely personal would be lacking from this type of association - and this poses a serious threat to the bonds formed, and the behaviors and skills

naturally learned and obtained through human interaction. Perhaps there is a way to utilize these types of robots that Dr. Breazeal has been developing for the good of humanity, but until I see a definitive way of making that possible, I just cannot find a reason to support it.

Professor Nick Bostrom

Professor Nick Bostrom[1] works in the Faculty of Philosophy at Oxford University, and is also the Founding Director of the Future of Humanity Institute[2], and the program on the Impacts of Future Technology within the Oxford Martin School[3]. Bostrom has authored some 200 publications regarding Transhumanism ethics, superintelligence, and human enhancement, among others. The five areas he is best known for working in include the concept of existential risk; the simulation argument; anthropics; Transhumanism, including related issues to bioethics and possible consequences of future technologies; and the foundations and practical implications of consequences.

Like Dr. Breazeal, Bostrom has been featured in a number of well-known publications and documentaries, including Time magazine, TED, BBC Horizon, The Meaning of the 21st Century, Discovery channel, and many more.

When I first came across Nick Bostrom's work I was a bit perplexed by some of his view-points about different Transhumanism technologies. He would be discussing the negatives of one kind, like nanotechnology, yet, mention positive potentials - and then explain how science needed to gain control of what he calls 'superintelligence', in order to be the master of nanotechnology, even though, he'd state, there would be a risk of superintelligence becoming uncontrollable.

To really grasp his philosophy on Transhumanism, one needs to read his work and watch his interviews. For a short time, I was

[1] Nick Bostrom's Home Page, http://www.nickbostrom.com/ (accessed 10 Oct. 2011)

[2] Future of Humanity Institute, 'About – Staff', University of Oxford, http://www.fhi.ox.ac.uk/about/staff/ (accessed 30 Jun. 2013)

[3] Oxford Martin Programme on the Impacts of Future Technology, http://www.futuretech.ox.ac.uk/ (accessed 30 Jun. 2013)

curious about whether Bostrom fully supported Transhumanism until I looked deeper and found that he had a working relationship with the next two people I will be discussing: David Pearce, and Ray Kurzweil. It became clear from that moment on that Bostrom has definitive positive views about Transhumanism and the Singularity we are heading towards. In fact, the World Transhumanist Association contains an interview he did with David Pearce regarding H+[1]. Bostrom's website has an entire section devoted to Transhumanism with some writings of his own detailing his view on the subject, and a very interesting paper which was published in *Medical Enhancement and Posthumanity*[2], entitled, *Why I Want to be a Posthuman When I Grow Up*.

As you read through Bostrom's personal website, you can see the outcome of what he and Pearce created being set forth into the world when they co-founded Humanity+ (formerly World Transhumanist Association). Whilst I find Bostrom to be very intelligent and philosophical, I also feel he is a complicated man, of whom, even today, I am still trying to piece entirely together.

Although some of Bostrom's views *are* intriguing, I still take issue with most. Bostrom is adamant that the human species will survive *only* if we synthetically evolve, and quickly, and I do not agree. I do agree with his statements that speak about our species being reckless with nature, having no regard for the future, and spiralling severely downward with regard to losing intellect (by design, in my opinion) - something we should, at this stage, be evolving. But Bostrom also carries a view I see time and time again within the Transhumanism construct, and

[1] World Transhumanist Association, 'Bostrom and Pearce interviewed by Cronopis', Posted 27 Dec. 2007, http://www.transhumanism.org/index.php/WTA/more/20071226cronopis/ (accessed 10 May 2013)

[2] Bert Gordijn and Ruth Chadwick (Eds.), *Medical Enhancement and Posthumanity*, *The International Library of Ethics, Law and Technology*, Vol. 2 (Springer, 2009) http://www.springer.com/medicine/book/978-1-4020-8851-3 (accessed 10 Oct. 2011)

that is that we, the human species, can only evolve if we play the role of 'God'.

In one example taken from an interview he did for Time magazine's *Health and Family* section, Bostrom states:

"The view that the human genome is perfect just the way it is, is absurd. Even a cursory look at human history reveals there is also much in human nature that is horrifically bad. When a species with our track record thumps its chest and declares itself to be already perfect - with zero room for improvement - it is hard to know whether to laugh or cry. However, it doesn't follow from this that we will necessarily improve things if we start mucking around with our genes. We could make things worse. [...]"[1]

I agree that humans are not perfect, and that is the way it is supposed to be. If we were perfect, we would not actively find ways to naturally evolve along-side nature, nor to assist each other in making this world better for all living creatures. When I read/hear the mention of anything regarding perfection, I am absolutely certain that it is coming from a Transhumanist. In the Transhumanism/Singularity construct, the word 'perfection' is not just an idea, but a final goal that is being worked on heavily in order to achieve the crescendo known in their circle as 'Posthumanism' (Human 2.0).

Perfection is not a goal *anyone* should strive for because it is our little character flaws and idiosyncrasies that make us all unique. This is what gives us room to grow and mature, evolving into a better person through self-improvement. I believe that the minute a person decides to stop learning, they truly stop living.

[1] Eben Harrell, 'The Future of Human Enhancement', *Time – Health & Family*, 9 Sep. 2009, http://content.time.com/time/health/article/0,8599,1921027,00.html (accessed 29 Jul. 2013)

Do we *want* to be autonomous beings that are controlled by what Nick Bostrom calls the *Superintelligence*? Should we yield to the heavily funded biotechnology institutes who wish to harvest our genomes and synthesize them into a state of bland perfection? A world of 'perfect' people (worker bees?) controlled by a superintelligent singularity machine is a sad future indeed.

Bostrom has his philosophical views, and I have mine, however, it is up to you to decide how you want to see this end.

David Pearce

David Pearce[1] is a philosopher of the negative utilitarian school of ethics who believes and promotes the idea that there exists a strong ethical imperative for all humans to work toward a goal of total abolishment of the suffering of all sentient life on Earth. He is best known for his 1995 manifesto, entitled, *The Hedonistic Imperative*[2], in which he outlines how such technologies as genetic engineering, nanotechnology, pharmaceuticals, and neurosurgery could potentially eliminate all forms of unpleasant experiences. Pearce is a huge supporter and promoter of Transhumanism, as you will learn shortly.

In 1998, Pearce, along with Nick Bostrom, a colleague who considers Pearce an 'influential person', co-founded the World Transhumanist Association, which was later renamed Humanity+. He was also a co-founder of the Abolitionist Society in 2002, is a board member of the Futurist Board for the Lifeboat Foundation, and is current Director of BLTC Research. BLTC Research is a website that, since 1995, has been publishing texts in support of biochemical and biotechnological methods that promote the belief of how the technology can effectively abolish the suffering of future generations. Humanity+ and Lifeboat Foundation will be discussed in depth in the coming pages, which will assist in understanding further who Mr. Pearce is.

Pearce is a vegan, of which I see nothing wrong, but when you add such extreme Transhumanism ideologies into the mix, you get a man like him with a future vision of humanity surviving on 'all-purpose food' that both steak lovers and vegans can appreciate. This sounds to me like a product of serious GMO

[1] Lifeboat Foundation, 'Advisory Board', http://lifeboat.com/ex/bios.david.pearce (accessed 7 Oct. 2011)

[2] HEDWEB, 'Hedonistic Imperative', BLTC Research, http://www.hedweb.com/hedab.htm (accessed 10 May 2013)

design using synthetic biology, or, better yet, a mix of synthetic *and* organic material to create a Claytronics type of food, as explained previously (see, **Nanotechnology**).

For a quick insight into David Pearce, take note of the following 'five ways' he believes Transhumanism can help reduce suffering:[1]

> *1. We Shall Soon Be Able To Choose Our Own Level Of Pain-Sensitivity*
> *2. We Can Soon Choose How Rewarding We Want Our Daily Life To Be*
> *3. Steak Lovers and Vegans Alike Can Soon Eat Cruelty-Free Diets*
> *4. Carnivorous Nonhuman Predators Can Be Phased Out Too*
> *5. We May Be On The Eve Of An 'Intelligence Explosion'*

To be clear at this point, I do share some of Pearce's views regarding the treatment of animals for food, and the fact that we over-consume meats and other processed foods. At fault is a mixture of social engineering, gluttony, and severe over consumerism, but on the flip side I feel that it is the individual's inalienable right to eat what they choose. The problem is the lack of educated people and the suppression by the food-medical-health-government regulatory conglomerate that has played a major role in this situation.

Trying to fix this problem in a laboratory with biotechnology, nanotechnology, and other H+ technologies is a *very* bad idea, and without a doubt, Pearce would disagree with my opinion. In fact, his own words and publications certainly prove that to be true. And whilst I cannot be sure of the reasons, his passionate stance on veganism appears often when looking into his work,

[1] HEDWEB, 'Top Five Reasons Transhumanism Can Eliminate Suffering', (Source: *Humanity Plus Magazine*, 21 Oct. 2010) http://hedweb.com/transhumanism/five-reasons.html (accessed 10 May 2013)

and one cannot help but wonder if this is wholly, or only partially, his driving force in support of Transhumanism. I wonder if he is like those overtly hardcore environmentalists who push to save every tree and animal on the planet, but behind it all, they want to see the population reduced.

One strong view backs up and pushes forward the other in a way. With his obviously vegan preference, the question remains whether it should be looked upon as *valid* reasoning for the synthetic enhanced-by-force evolution of our species. In the Transhumanism/Singularity movement, Pearce has quite the pull; he was one of the architects that created the Transhumanist Declaration[1] in 1998, so, in this construct, or community, if you will, he is very influential - and he promotes some extreme views that, quite honestly, are concerning.

When I read this excerpt from an interview he did for ARZone (Animal Rights Zone), my jaw really dropped after hearing his 'God-like' perspective on what Transhumanism is aiming for when it reaches its posthumanist climax:[2]

"Transhumanists aspire to God-like superintelligence. I think God-like superintelligence entails not just an off-the-scale IQ, but an off-the-scale perspective-taking capacity too - a capacity to weigh all possible first-person perspectives and act accordingly. By the lights of posthuman superintelligence, we all have varying degrees of 'mind-blindness' or autistic spectrum disorder. Just as people born blind don't grow up living in darkness - a popular misconception - likewise, humans living in a speciesist culture are oblivious of our ignorance most of the time. Hence the need for antispeciesist projects such as ARZone. [...]"

[1] Humanity +, 'Transhumanist Declaration', http://humanityplus.org/philosophy/transhumanist-declaration/ (accessed 2 Aug. 2012)

[2] Animal Rights Zone, 'Transcript of David Pearce's Live ARZone Guest Chat', 25 Apr. 2011, http://arzone.ning.com/profiles/blogs/transcript-of-david-pearces (accessed 11 May 2013)

God-like superintelligence? Indeed, that is what Pearce is quoted as saying, and the point he made about varying degrees of 'mind-blindness', or autistic spectrum disorder was utterly disturbing. Yet, his is a similar opinion to others that I continue to find within all levels of the Transhumanism construct: the desire to be God-like in perfection, never grow old, and exist in a human-computer utopian interface of virtual, as well as augmented, reality - where stress and worry (both healthy attributes for growth and experience) have become extinct.

To truly enter the mind of David Pearce, please refer to the footnotes, but if you are still on the fence about Transhumanism, then perhaps the following excerpt from another of Pearce's works, entitled, *Utopian Neuroscience*[1], will help you decide which way to further lean:

"If this utopian-sounding vision is to be realized, then cheap, palatable, genetically-engineered vatfood will need to replace flesh from factory-farmed non-human animals in our diets; perhaps biotechnology plus market economics will succeed where moral argument fails. But ultimately, ending the Darwinian holocaust and securing the well-being of all sentient life entails an engineering mega-project: genomic rewrites, nanorobotics, and ecosystem redesign penetrating the furthest recesses of the oceans. So why ask for more? If and when the abolitionist project is complete, runs this objection, then we will have discharged all our ethical obligations. Or at least, only after suffering has been abolished throughout the living world should we consider truly revolutionary interventions to enrich our emotional lives. [...]"

If you have seen the satirical movie, *Idiocracy*, mentioned during the section on **Codex Alimentarius**, then you know exactly what 'genetically engineered *vatfood*' would look like. What Pearce ignores in his exclusively bland suggestion is that

[1] SuperHappiness, 'Utopian Neuroscience', (Notes for a talk to transhumanists in Second Life, March 2008) BLTC Research, http://www.superhappiness.com/index.html (accessed 10 may 2013)

indulging on rare occasion in one meal of free-range certified 'GMO free' organic meat is acceptable, whilst a life filled with fresh organic fruit and vegetables, and healthy foods that are non-invasive to the human body system is far superior and preferable. It can be done easily enough, as nature provides an incredible array of nutrients and flavor.

When a third party begins to express how everyone should eat, it becomes a direct invasion of our own free-will, however, with what is happening in the world of food with this pandemic of GMO and other biotechnologies, it would seem that, in a way, Mr. Pearce is getting some of what he wants for our future. If the food continues to become as toxic as we have seen it become, sooner, rather than later, those who are not resourceful enough to grow their own will become slaves to the Transhumanism construct, and the machines that enforce it, both passively and actively.

I have no reservations about categorizing David Pearce as a Transhuman extremist, and if his ideologies continue to grow, spread, and influence those who are in the relevant departments of research and development, then we are going to be set adrift in dark waters where it will be a last stand between the organic humans and the transhumans of synthetic evolution.

Ray Kurzweil

Author, inventor, Futurist, and Director of Engineering at Google, *Ray Kurzweil* has an ongoing involvement in projects, institutes, and other Transhumanism fields a mile long. His resume is so vast that it is simply too much to mention during this brief section. I would, as I am sure others do, consider Kurzweil the current number one 'superstar' in the world of Transhumanism, and just a glimpse into all he has had and does have a hand in, as well as his long list of appearances on television and documentaries, is all the proof required.

Kurzweil has written books on health, artificial intelligence, Transhumanism, the Technological Singularity, and Futurism. He is widely known as an advocate for the Futurist and Transhumanist movements, and has spoken at a large number of events. Areas he seems to be focused heavily on include life extension technology, nanotechnology, robotics, and biotechnology.

Without any doubt, Kurzweil is the most recognizable and modern face of the Transhumanism movement, but he is not just an advocate or philosopher of such things as Futurism. His resume of *inventions*[1] includes some of the most highly regarded in recent history. While most people may have never heard of Kurzweil, they are often familiar with some of the modern technological devices that resulted from his creation. Some of these include the first CCD flatbed scanner; the first omni-front optical character recognition; the first speech-to-speech reading machine for the blind; the first text-to-speech synthesizer; the first music synthesizer capable of recreating the grand piano, and other orchestral instruments; and, the first commercially marketed large-vocabulary speech recognition. So, it is easy to see that Kurzweil has the knowledge *and*

[1] Kurzweil Accelerating Intelligence, 'Ray Kurzweil Bio', KurzweilAINetwork, http://www.kurzweilai.net/ray-kurzweil-bio (accessed 9 May 2013)

experience to truly be a leader in the Transhumanism movement, with a support network that reaches the four corners of the globe.

As with the previously mentioned 'Big Ten' in this section, Kurzweil has been featured all over the place: from major magazine publications, to documentaries and prime time television shows. Two movies I recommend watching that feature Kurzweil are, *The Singularity Is Near*, and *Transcendent Man*[1].

Even his list of companies and affiliates[2] are, to say the least, impressive. These include: The Kurzweil Foundation, Singularity University; Ray & Terry's Longevity Products; FatKat; knfb Reading Technology, Inc.; Kurzweil Computer Products; Kurzweil Technologies; Kurzweil Music Systems; Kurzweil Cyber Art; Kurzweil Educational Systems; and, Kurzweil AI. This man has his hand in so much: I would be surprised if he even sleeps.

Since becoming the Director of Engineering at Google in the latter half of 2012, it was not long before Kurzweil began cooking up something that would create quite a stir. In April, 2013, there appeared several articles containing news on the next big thing the mega-corporation was announcing. Not as simple as the title of one particular article from Wired.com, but accurate to the overall agenda that is being developed, this article, titled, *How Ray Kurzweil Will Help Google Make the Ultimate AI Brain*[3] posed the question to Kurzweil about what exactly his mission at Google is. Kurzweil answered with the following statement:

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[1] *Transcendent Man*, dir. by Robert Barry Ptolemy (2009; Ptolemaic Productions, 2013 Online) Documentary website - http://transcendentman.com/

[2] Kurzweil Accelerating Intelligence, 'Kurzweil Projects & Companies', KurzweilAINetwork, http://www.kurzweilai.net/kurzweil-projects-and-companies (accessed 9 May 2013)

[3] Steven Levy, 'How Ray Kurzweil Will Help Google Make the Ultimate AI Brain', *Wired.com*, 25 Apr. 2013, http://www.wired.com/business/2013/04/kurzweil-google-ai/ (accessed 25 Apr. 2013)

"My mission at Google is to develop natural language understanding with a team and in collaboration with other researchers at Google. Search has moved beyond just finding keywords, but it still doesn't read all these billions of web pages and book pages for semantic content. If you write a blog post, you've got something to say, you're not just creating words and synonyms. We'd like the computers to actually pick up on that semantic meaning. If that happens, and I believe that it's feasible, people could ask more complex questions. [...]"

In a nutshell, Kurzweil and Google are working on creating a more intelligent network. This artificially intelligent network would be accessible to both your personal computer, and the internet itself. But it gets more interesting very quickly when asked if he would argue whether his system would be considered conscious if it understood complex natural language. Kurzweil had this to say:

"Well, I do. I've had a consistent date of 2029 for that vision. And that doesn't just mean logical intelligence. It means emotional intelligence, being funny, getting the joke, being sexy, being loving, understanding human emotion. That's actually the most complex thing we do. That is what separates computers and humans today. I believe that gap will close by 2029. [...]"

This is really just the tip of the iceberg when diving into the world of Kurzweil, a man who seems feverishly obsessed with life extension as well as most other Transhumanism technologies. I encourage the reader to watch *Part 2* of the series, *Visions of the Future: The Biotech Revolution*, to hear Kurzweil say how he is a huge supporter of Transhumanism, and why he feels life extension technology is so essential for human evolution.

I understand that a large percentage of humans fear death and wish to live as long as they can since this is a perfectly natural feeling. Desiring a long life, but cheating death by swallowing a bunch of pills possibly impregnated with nanotechnology, or becoming a lab rat for synthetic biological research *just* to try to last a *few more years*, is no way to live. If, however, science finds natural ways to increase the average lifespan, then perhaps it could be embraced by organic people without the need to converge with machines.

I am sure to some this may all seem overwhelming, or even daunting, and perhaps others may interpret what I have to say as a little paranoid, but once an intelligent and reasonable person reviews the work of Kurzweil and others in the Transhumanism movement, I guarantee you will find that every personal view of mine that I have shared is completely reasonable.

I consider Kurzweil a 'leader of the pack' in the Transhumanism construct. It does take, and has taken, much effort, time, and patience, to review and study all he has been involved with; and, in closing, I think it appropriate to end here with a profound quote of his, which, in my opinion, so eloquently describes the meaning and the overall viewpoint of Transhumanism:[1]

"Biological evolution is too slow for the human species. Over the next few decades, it's going to be left in the dust."

[1] ThinkExist, 'Ray Kurzweil Quotes', http://thinkexist.com/quotation/biological-evolution-is-too-slow-for-the-human/1501770.html (accessed 25 May 2013)

Dr. Aubrey de Grey

Dr. Aubrey de Grey[1] has made quite the name for himself in the Transhumanism community for some time, and his work shows that clearly. As a Biomedical Gerontologist, his main focus is the *intervention* of aging, through life extension technology. He is best known for his founding projects: the Methuselah Foundation[2], and, SENS Research Foundation[3] - both of which focus on life extension/age intervention technology in a number of varieties. Dr. de Grey is also the Editor-In-Chief of *Rejuvenation Research*[4], a highly regarded peer-reviewed journal.

As with most notable members of the Transhumanism construct, Dr. de Grey sits on a number of advisory boards for well-known organizations and foundations focusing on Transhumanism. These included the following, some of which have been mentioned over the course of this book: Supercentenarian Research Foundation; Maximum Life Foundation; Legendary Pharmaceuticals; Centenarian Species and Rockfish Project; Alcor Life extension Foundation; Singularity University; Lifeboat Foundation; Foresight Institute; and, Biomind LLC.

As well as everything mentioned above, this very busy man sits on the Board of Directors for several related institutes and associations, and is the author of a large number of papers, and several books. Most notably, for me, is that he also contributed to the 'bible' of Transhumanism entitled, *The Transhumanist*

[1] Wikipedia The Free Encyclopedia, 'Aubrey de Grey', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Aubrey_de_Grey (accessed 8 Jul. 2013)

[2] Methuselah Foundation, http://www.methuselahfoundation.org/

[3] SENS Research Foundation, http://www.sens.org/

[4] Mary Ann Liebert, Inc. publishers, 'Rejuvenation Research', http://online.liebertpub.com/REJ (accessed 8 Jul. 2013)

Reader: Classical and Contemporary Essays. I could list many more of de Grey's credentials, but we need to move on.

After reading a lot of his work and listening to his views and ideas from a number of documentaries, I have found this soft spoken man to have some reasonable arguments - but where he becomes controversial is that, so far, most of what he is wanting to accomplish has yet to come into fruition. I believe this is why Dr. de Grey's research branches into many different directions; he most certainly comes off as a man on a mission whom he himself believes will serve humanity well in the not-so-distant future. I do, however, take issue with several ideas he has, and feel he has framed part of nature in a negative light, which, in turn, has mutated the outlook on the ageing process, and even death.

On numerous occasions in his publications, articles, and interviews, he refers to death and ageing as a disease that can be cured once the right parameters for doing so are accomplished. To categorize death and aging as a 'disease' gives it a negative label that invokes fear into the less informed public, and de Grey has already accomplished this to some level. It also ignites a fire within the Transhumanism construct, and only opens doors for further biotech research to synthetically extend life and cheat death.

When people fear death they forget to embrace life, and once this notion takes hold in the psyche, the individual is already a 'dead man walking'. I cannot emphasize enough that death is merely a transitional phase to the next energetic journey: whatever that may be. If Dr. de Grey was solely concentrating his research on an organic plain of technology utilizing natural herbs, minerals, etc., then I would happily support the man. However, this is not the case since a large sum of his work is surrounded by biotechnology, bioinformatics, cryonics, pharmaceuticals, and even nanotechnology. In other words, much of his research and work appears to involve - yet again - the synthesized evolution of humanity - but with the focus on biotech life extension. This is a key element for Posthumanism

since it would need to incorporate making sure that the biological side of the human is able to last as long as the robotic/cybernetic side, or, the *PRIMO Posthuman*, as labeled by *Natasha Vita-More*.

A lot of Transhumanists express the importance of perfection needing to be acquired in order for the human race to survive in the future. We see this whether discussing The Singularity, superintelligence, or existential risk, which are huge topics within the community. Perfection, as related to Posthumanism, is the *Human 2.0 slavery* under control of a super-centered AI network. Perfection breeds out the idiosyncrasies and character defects of the individual. Without flaws, we cannot organically grow and evolve.

Although de Grey stays away from the term 'immortality', he does express how extended healthy life could promise a more perfect society in many ways. I cannot help but get the impression, though, that he does seek for a way to achieve it - and this is noticeable throughout his work and his interviews, yet, he denies doing so, when asked. He is not, however, free of criticism, and does receive a lot of it from others, both from within and outside of, his field of research. This is a common trait with those leading the way in the Transhumanism construct.

I personally find Dr. de Grey to be a somewhat hard person to figure out, as he defends his work quite carefully when approached to answer difficult questions. This may be a result of much criticism by members of the scientific community, or he may simply be driven by his own passion. Either way, to come to an absolute conclusion on who Dr. Aubrey de Grey is, and what fuels his research, one should be thorough in their consideration. My own opinion of him is in itself a paradox, because at times he has expressed good arguments for his work, and then other times he seems to be looking to contribute to a movement I am so sternly against. The best way I can describe

his philosophy is using the following quote, which, I believe, sums it up nicely:[1]

"The answer is mainly psychological. We've spent the last few millennia aware that senescence is horrible but knowing nevertheless that it's inevitable. We've had to find some mechanism to put it out of our minds so we can get on with our miserably short lives. There's nothing wrong with making the best of one's declining years, but what does annoy me is the fatalism. Now that we're seriously in range of finding therapies that actually work against ageing, this apathy, of course, becomes an enormous part of the problem. [...]"

If and/or when Dr. de Grey is able to achieve his goal, will it truly benefit humanity, or will it become a fear-driven need by the masses who are afraid that death is final and that there is nothing beyond it? Could this kind of technology be secluded to just the rich and elite of the world, or will it be a gift to all? Would his work, unbeknownst to him, be engineered by others so as to incorporate it into a synthesized posthuman? There is no way for any of us to be sure as of yet, but with all I have seen so far, I cannot help but be concerned about the outcome. Even if de Grey is unsuccessful in his lifetime, who will the next person be to pick up where he left off, and will they be incorruptible, or will they fall into the tangled grip of the Transhumanism construct?

[1] John Sutherland, 'The ideas interview: Aubrey de Grey', *The Guardian*, 27 Mar. 2006, http://www.theguardian.com/lifeandstyle/2006/mar/28/healthandwellbeing.research (accessed 8 Jul. 2013)

Dr. Ben Goertzel

Dr. Ben Goertzel[1] is one man that belongs, unquestionably, in the top tier of Transhumanism when it comes to artificial intelligence. His resume clearly expresses this, and anyone who looks at it will find it largely apparent; and, like the individuals I have mentioned already, his writings and affiliations make up a long list.

Best known for co-founding three AI based entities: Novamente LLC[2] (specifically AI based); Biomind LLC[3] (based in AI and Bioinformatics); and, OpenCog Foundation[4], Dr. Goertzel's associations and other projects span far and include many, most notably of which are: Genescient Corporation; Aidyia Limited; Humanity+; and, the Artificial General Intelligence Research Institute. On Dr. Goertzel's personal website you can find an extensive list of his projects, research, books, and papers he has written that would consume weeks of your time in order to research properly.

Dr. Goertzel is held in high regards by the Transhumanism community because the role of artificial intelligence being a crucial aspect for the furthering of the agenda as a whole (for more on this, refer to the section on **Artificial Intelligence)**.While he might appear likable and down to earth, Dr. Goertzel is also extremely intelligent, with a sense of being a genuinely fun person who might attract many friends. His dedication and work ethics are admirable in every sense of the word, so it might seem that most people would have a hard time debating with him.

[1] Dr. Ben Goertzel's website, 'About Me', http://wp.goertzel.org/?page_id=24 (accessed 10 Jul. 2013)

[2] Novamente LLC., http://wp.novamente.net/

[3] Biomind LLC., http://wp.biomind.com/

[4] OpenCog Foundation, http://opencog.org/

I have said always that I believe there are key players in the Transhumanism movement who have genuinely good intentions, but whom may not have considered the bigger picture as thoroughly as they should (which, of course, is the purpose of this book). I cannot say with any certainty if Dr. Goertzel has done so or not, but with the amount of militant H+ entities he is heavily dedicated to, I cannot help but feel that this man is overtly pro Transhumanism.

After reading one of his papers, I was left pondering some interesting conclusions in regards to Goertzel's own ideas and research into AI. The two things he mentions in the paper that I had not come across before, were terms used by a person named *David Chalmers*[1]. What Chalmers describes in relation to Artificial Intelligence are AI+ (extensible, human-level AI) and AI++ (Singularity-constitutive, dramatically superhumanly intelligent and powerful AI). He goes further into what these mean in the paper titled, *Should Humanity Build a Global AI Nanny to Delay the Singularity Until It's Better Understood?*[2].

I felt like I was being bounced all around in this paper, as he goes on to describe how or why a superintelligent AI 'nanny' may be put into existence; and, how it may or may not protect humans from a malevolent Singularity event occurring where humans become the slaves of the machine. He also expresses that there could be a *need* to have an AI nanny put online in order to protect us from an *uncontrollable rise* of self-aware machines. This paper includes views mentioned by *Ray Kurzweil*, and the somewhat dark and pessimistic, *Nick Bostrom*. For me, it really completed the picture I have of Dr. Ben Goertzel, and helped to cement my analysis of who this man behind such influential AI research, is.

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[1] David Chalmers' website, http://consc.net/chalmers/ (accessed 10 Jul. 2013)

[2] Dr. Ben Goertzel, 'Should Humanity Build a Global AI Nanny to Delay the Singularity Until It's Better Understood?', *Journal of Consciousness Studies*, **19**, No. 1–2, 2012, pp. 96–111, http://commonsenseatheism.com/wp-content/uploads/2012/03/Goertzel-Should-Humanity-Build-a-Global-AI-Nanny-to-Delay-the-Singularity-Until-its-Better-Understood.pdf (accessed 10 Jul. 2013)

In closing this section, I felt it would suit the subject matter to include an interesting quote by Dr. Goertzel himself that I believe is quite profound in nature. It is one that, in my view, besides the obvious projects he is involved with, more than qualifies him to be included in this chapter as a top ten contributor in the Transhumanism construct.

"I believe that I have arrived at a detailed software design that is capable of giving rise to intelligence at the human level and beyond. If this is correct, it means that the possibility is there to achieve Singularity faster than even Kurzweil and his ilk predict. Furthermore, having arrived at one software design that appears Singularity-capable, I have become confident there are many others as well. There may be other researchers besides me, actively working on projects with the capability of achieving massive levels of intelligence. [...]"[1]

I wonder whether, when the AI machines eventually 'rise up', the kindly Dr. Ben Goertzel will be idolized with a carved statue by the mechanical offspring he assisted in creating, or whether he will suffer the same fate as the rest of humanity. Hopefully, neither will come into fruition, for the sake of the organic lives of us all.

[1] MachinesLikeUs.com, 'Biographies – Ben Goertzel', http://machineslikeus.com/biographies/ben-goertzel (accessed 10 Jul. 2013)

Dr. Max More

A philosopher, Futurist, and Transhumanist, Dr. Max More[1] carries degrees in philosophy, politics and economics. These qualifications have aided him in many ways when it has come to climbing the ropes and standing with the top tier of Transhumanism contributors. Although he does not have a scientific background, he has thrown himself head first into the construct of H+, and has a number of highly important credentials under his belt now. These credentials include being an advisor for Humanity+; a co-founder of the original Transhumanism magazine, *Extropy: The Journal of Transhumanist Thought*[2]; co-founding the Extropy Institute; founding Alcor-UK[3]; sitting as President & CEO of Alcor Life Extension Foundation; and, assisting in and organizing many Transhumanism conferences. Dr. More has undertaken a vast amount of interviews, and has also written a number of papers and books.

I find it interesting that Dr. More has been placed on a pedestal of significant height by the lower tiers of those within the Transhumanism construct. More is idolized by many, and if this was a different era, it seems he might even be considered a Demi-God. He is actually given credit for being *the* modern Transhumanist to introduce the world to the term 'Transhumanism' in a paper he wrote back in 1990, entitled *Transhumanism: Toward a Futurist Philosophy*[4]. Unfortunately for his blind followers, this is completely incorrect.

[1] Max More's website, http://www.maxmore.com/ (accessed 9 Jul. 2013)

[2] Extropy Institute, 'Publications', http://www.extropy.org/publications.htm (accessed 9 Jul. 2013)

[3] Alcor Life Extension Foundation, 'Alcor UK', http://www.alcor.org/AlcorUK.html (accessed 11 Oct. 2011)

[4] MaxMore.com, 'Transhumanism: Towards a Futurist Philosophy', 1990, http://www.maxmore.com/transhum.htm (accessed 9 Jul. 2013)

Dr. More certainly did *not* introduce the term to the public because that was done by Sir Julian Sorell Huxley back in the 1920s and 30s. Even though I am against this construct comprising of Transhumanism, Posthumanism, Earth 2.0, Transfigurism, Singularity, and Extropy, I believe that we must keep the facts clear. Yet, as we see with well-known athletes and movie stars, fans sometimes stretch the truth in order to glorify their superstar idols even further than they are deserving of.

'Extropy' is a term not widely used outside this construct, but it is important to understand it since it is related directly to Transhumanism, and Dr. More, in particular. Extropy - or, Extropism - is a philosophy which involves a framework of values and standards for the continuous improvement of the human condition. Extropians believe that this is accomplished through advances of science and technology that will someday give people the ability to live forever.[1]

Most Extropians are contributors to this goal by way of research, development, or volunteering. This is exactly the kind of philosophy Dr. More is involved in. The Extropians have embraced Transhumanism in order to reach Posthumanism, which carries many goals: one being immortality. I believe this philosophy of Dr. More played a heavy hand in allowing him to get so deeply involved with cryonics - which eventually led him to his position at Alcor, as well as founding the Extropy Institute.

I can almost guarantee that going to any of the more popular Transhumanism or Singularity websites will bring you face to face with something written about, or by, Dr. Max More. He plays such a huge role in The Construct, as mentioned, and his views are so incredibly militant that they appear similar to Orthodox religious sects. His created vision, in my view,

[1] Wikipedia The Free Encyclopedia, 'Extropianism', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Extropianism (accessed 10 Jul. 2013)

appears to be looked upon blindly by the less informed because they have been mesmerized by this man's charisma and charm. We must not be fooled by how he delivers the information, and instead, be aware of what the information really means to us, and the real risk/s it poses.

Transhumans want to finish the transhuman process in order to reach the posthuman era where it is said by many notable people that religion will be gone; imperfection will be extinguished; there will be no more sickness, nor death; one-of-a-kind 'vatfood' will sustain us; and there will be no concern about being alienated for being an individual - which means that individual thought will cease. The world will then become a global cybernetic Utopia. Sounds ridiculous, right? This is what More, one of the leaders of this movement, had to say on the topic of 'becoming posthuman':[1]

"No more gods, no more faith, no more timid holding back. Let us blast out of our old forms, our ignorance, our weakness, and our mortality. The future belongs to posthumanity. [...]"

In other words, what the man is trying to say is that we should *erase* the current mind, body, and spirit, and build new ones in the techno-paradigm of posthumanity . . . No, thank you.

[1] MaxMore.com, 'On Becoming Posthuman', 1994, http://www.maxmore.com/becoming.htm (accessed 10 Jul. 2013)

Dr. Natasha Vita-More

There is a Queen in the hierarchy of Transhumanism, and her name is *Dr. Natasha Vita-More*[1]. Review any Transhumanism or Posthumanism website - or, for that matter, most tech-based sites as well - and you will find her name. She has covered and utilized so many directions to promote the H+ construct that it is almost overwhelming.

You can find Dr. Vita-More featured on covers of magazines, and within, concerning her art and exhibits, conferences and forums, interviews, various writings, and information about her other affiliations, including her own fitness/exercise programs. She was the producer and host of her own television show, *Transhuman UPdate*[2], is one of the co-editors of the Transhumanism 'bible', entitled, *The Transhumanist Reader: Classical and Contemporary Look at Philosophy and Technology*[3], plus, a whole lot more.

Dr. Vita-More's past and present affiliations have quite the variety, and even include the Screen Actors Guild, but when we talk about Transhumanism, she holds affiliations that include prominent roles such as Chairman of Humanity+; President of Extropy Institute; Founder and Director of Transhumanist Art & Culture; Advisor for Alcor Life Extension Foundation; Advisor for Lifeboat Foundation, and more.

What is most interesting about Dr. Vita-More is that her education background according to her resume includes the arts and fitness arenas, but she has taken a role in Transhumanism

[1] Dr. Natasha Vita-More's website, http://www.natasha.cc/ (accessed 8 Jul. 2013)

[2] Natasha.cc, 'Full CV', http://www.natasha.cc/cv.pdf (accessed 8 Jul. 2013)

[3] Max More and Natasha Vita-More (Editors) *The Transhumanist Reader: Classical and Contemporary Look at Philosophy and Technology* (Wiley-Blackwell, 2013) http://www.kurzweilai.net/the-transhumanist-reader-is-first-overview-of-transhumanist-thought (accessed 8 Jul. 2013)

that has placed her in such high regard that she has even been a guest speaker at the Global Future 2045 International Congress[1] - and I can assure you that she was not invited simply for making some great H+ digital art. Dr. Vita-More has really hit the lime-light with her creation of the *PRIMO Posthuman*[2], but, before we continue along that path, below is an excerpt taken directly from her Bio on the Kurzweil Accelerating Intelligence website, concerning her work.

"Natasha's research concerns the design aesthetics of human enhancement and radical life extension, with a focus on sciences and technologies of nanotechnology, biotechnology, information technology, and cognitive and neuro sciences (NBIC). Her conceptual future human design 'Primo Posthuman' [...]"[3]

Now, to be fair, she does hold a degree in computers and electronics, as well as future studies, social sciences, and humanities - which I can only surmise have aided her in her idea of the PRIMO Posthuman.

PRIMO is Dr. Vita-More's concept of a future wherein each human being is able to literally customize their body - much like someone would customize (or, 'pimp') their hot rod car. She breaks it down in detail on her website, explaining everything from customizing the shape of your legs, to cybernetic implants for your brain. It is another version of Posthumanism that follows a desire to become a synthetic, 'evolved' human, much like the goals of the *2045 Initiative*. Basically, if you find something you consider imperfect on or in your body, then you just replace the part: the next step of plastic surgery, I suppose, but with nanotechnology, AI, augmented reality, and even

[1] Global Future 2045 International Congress, 'Speakers', http://gf2045.com/speakers/# (accessed 7 Jun. 2013)

[2] Natasha.cc, 'PRIMO Posthuman', http://www.natasha.cc/primo.htm (accessed 8 Jul. 2013)

[3] Kurzweilai.net, 'Contributors – Natasha Vita-More', http://www.kurzweilai.net/natasha-vita-more (accessed 8 Jul. 2013)

brain-computer interfacing - which, in turn, makes you the Human 2.0 model known as PRIMO.

An interesting fact about Vita-More pertains to her virtual reality conference. Discussed earlier in the book was the VR world of Second Life, and Dr. Vita-More embraced and promoted this in order to attract all the techno-zombies who see Transhumanism as 'Avalon', and Ms Natasha as their 'Queen of Hearts'. The entire conference was held in Second Life's virtual world where everyone attending was utilizing their Avatar self. This woman capitalizes on every aspect of Transhumanism, and does it very well. [1]

Throughout this book, I have made a number of references to 'Human 2.0', which is just another term for Posthumanism. It was not until I was researching the work of Dr. Vita-More and her PRIMO Posthuman that I discovered that the Human 2.0 is, in her concept, *not a finality*. She has developed an outline in the form of her 'Human Tree of Future Human Self', described here as the 'Transhuman Family Tree', that begins with the Beta Human (Human 1.0) - that is, our current state - which then splits into two branches.

The first branch leads the path that evolves to the Human 1.5 state, and then quickly on to Human 2.0. The other branch takes a more complicated route that branches off further, and leads to steps in language, art, science, biotechnology, Transhumanism, and more. The perplexing thing about it is that the side that reaches Human 2.0 mentions nothing of these technologies being immersed into the Human evolution process. In fact, after a long branch with nothing shown, it finally reaches *Human 3.0*. The Human 3.0 stage then has the option of advancing still to

[1] Second Life Event – Morphological Freedom, Article: Giulio Prisco, 'Transhumanist Avatars Storm Second Life', *H+ Magazine*, 19 Sep. 2011, http://hplusmagazine.com/2011/09/19/transhumanist-avatars-storm-second-life/ ; Youtube.com, 'Humanity+ community event in Second Life, September 15, 2011', uploaded by Giulio Prisco, https://www.youtube.com/watch?v=ZizwQyVEOP0 (both accessed 10 Jul. 2013)

'Collective Intelligence', and then on to 'Biobrainsphere', and then finally reaching the highest level Dr. Vita-More has labeled, 'Noosphere'.

Back to the other side where the Human 1.0 did not take the route that led to Human 2.0, there is a tangled path that leads to several end options. Those options are 'Automorph', 'Body-Left-Behind', 'Posthuman', 'AI Biological', 'Super Intelligent Machine', or, crossing over to end at 'Noosphere'. This has given me pause, and made me realize that my work in researching this vast and complicated subject has only really *just begun*.

Exactly what ideas and technologies are being developed behind closed doors for the purpose of this agenda? What else could they possibly come up with to assimilate those who resist this techno-apocalypse? It is extremely difficult to say as of yet, but with a Queen such as Dr. Natasha Vita-More holding this kind of influence over the techno-masses of fallen humans, I would say we must stay vigilant and keep an eye on the growing trends that are leading a forced transition to PRIMO Posthumanism.

Special Note: After enough research regarding the ten individuals featured in this book, plus many more you, will begin to notice that most of them either currently do or have worked together on joint projects; from research, to founding organizations, and even to co-authoring books. Most have appeared to develop friendships during these ventures, but some have created rivalries. None have caught my eye so much as the last person I wish to discuss: Dr. Hugo de Garis.

Dr. Hugo de Garis

Prior to researching the work of *Dr. Hugo de Garis*[1] I had only read a few articles about him and had seen some documentaries he was featured in. My first impression was that this man was an obvious key player in Transhumanism, and I later discovered I was correct. Diving deeper into who de Garis really was, I uncovered information that not only shocked me, but actually changed my entire view on the man.

Dr. de Garis has been publishing papers, essays, and books since the 1990s, and it was during the 1990s that he became known for his research in genetic algorithms to evolve neural networks using three dimensional cellular automata inside field programmable gate arrays. This sounds complicated, but what it amounts to is what he really became famous for: the ability to create the 'artificial brain', which would quickly surpass human intelligence. So, as you may have already concluded, de Garis is enmeshed in the fields of artificial intelligence and artificial life. His degrees are in computer science and mathematical physics, which seem to be a requirement in the AI field of research.

According to Dr. de Garis' resume[2] on his website, he holds editorial board membership of five journals which all deal with the subject matter of artificial intelligence. Out of the books he has written, the one still on my list to read - which I feel will be a must for anyone interested in the subject - is titled, *The Artilect War: Cosmists vs. Terrans: A Bitter Controversy Concerning Whether Humanity Should Build Godlike Massively Intelligent Machines*[3]. The title alone sounds like something

[1] Dr. Hugo de Garis' website, http://profhugodegaris.wordpress.com/ (accessed 29 Jul. 2013)

[2] Dr. Hugo de Garis' website, 'Resume/CV', http://profhugodegaris.wordpress.com/about/ (accessed 29 Jul. 2013)

[3] Hugo de Garis, *The Artilect War: Cosmists vs. Terrans: A Bitter Controversy Concerning Whether Humanity Should Build Godlike Massively Intelligent Machines*

that might become a heated debate amongst its readers, or between de Garis' avid supporters, and those in defense, or on the fence, concerning synthetic AI evolution.

Prior to ARCing (After-Retirement Careering), de Garis was Director of the Artificial Brain Lab (ABL) at Xiamen University, China, where he was building China's first artificial brain[1]. He contributed to many scientific journals on mathematical physics, computer science, and artificial intelligence. Although he is now 'officially retired', it has not slowed down this man, as can be seen quite clearly on his website.

The fact that de Garis has been so heavily involved with AI immediately qualifies him to be included in the Transhumanism construct, but unlike all the previous people I have discussed, he stands out in ways I could not have imagined. I consider Dr. de Garis the aristarchian of the Transhumanism movement due to much of what I have read about him in articles, and especially in his own essays.

It would appear that a falling-out at some point occurred between de Garis and a number of known people in the H+ construct. Whether there had been bad blood prior, or whether an event took place between them is uncertain at this point, but what I have learned is that this man is not only fearless and outspoken, but he is quite likeable. Personally, I would jump at the opportunity to sit down with him and really get to understand his viewpoints on Transhumanism.

Dr. de Garis has been receiving a tremendous amount of criticism over the internet for his opinions on The Singularity, The Singularity Institute (which he so eloquently calls, *The*

(USA: ETC Publications, 2005) http://www.amazon.com/The-Artilect-War-Controversy-Intelligent/dp/0882801546 (accessed 29 Jul. 2013)

[1] Kurzweilai.net, 'Contributor - Hugo de Garis', http://www.kurzweilai.net/hugo-de-garis (accessed 29 Jul. 2013)

SinghilarityInstitute)[1], and mainstream Transhumanism; at times challenging the theories of people like *Ray Kurzweil* and *Nick Bostrom*. His essays seem to present the idea that there is an obvious split within the Transhumanism construct, with some theorizing that The Singularity and Posthumanism will be the next 'Garden of Eden', like *David Pearce*, or *Michio Kaku* would suggest.

Dr. de Garis, being the target of a lot of critical editorials and opinions, although identifying himself as a Transhumanist, stands alone in being on the polar opposite end of most euphoric ideologies that make up this movement. What he has been expressing, and for some time now, is something I was personally theorizing on prior to researching him - although he certainly gets the credit for coming up with it first. Dr. de Garis is on record stating that he believes that a global war between the *supporters and opponents* of intelligent machines (i.e., Humanists vs. Transhumanists) will not only result in the deaths of billions of people, but that it is, he believes, almost inevitably destined to occur before the 21st century is over. A controversial (to some) and bold statement made by a man who is highly intelligent and still quite influential, it sounds astoundingly similar to the premise of both the *Terminator* and *The Matrix* series of movies. [2]

In words that could not have formed a more dire and accurate warning about the dangers of AI technology, the following quote, one of my favorites by Dr. de Garis, neatly sums up his stance on the future of Transhumanism and its divided construct:[3]

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[1] Dr. Hugo de Garis' website, 'Essays – The Singhilarity Institute', http://profhugodegaris.files.wordpress.com/2011/04/the-singhilarity-institute.pdf (accessed 29 Jul. 2013)

[2] Socrates, 'Hugo de Garis on Singularity 1 on 1: Are We Building Gods or Terminators?', *Singularity Weblog*, http://www.singularityweblog.com/hugo-de-garis-gods-or-terminators/ (accessed 30 Jul. 2013)

[3] MachinesLikeUs.com, 'Biographies – Hugo de Garis', https://machineslikeus.com/biographies/hugo-de-garis (accessed 30 Jul. 2013)

"I believe that 21st century technologies will allow the creation of 'artilects' (artificial intellects, artificial intelligences, ultra intelligent machines), with intellectual capacities zillions of times greater than those of human beings. I believe that this technological possibility will force the issue of whether artilects should be built or not. I believe that humanity will split into two major ideological camps, one in favor of building artilects (the 'Cosmists') and those opposed (the 'Terrans'). I believe that the ideological disagreements between these two groups on this issue will be so strong, that a major 'artilect' war, killing billions of people, will be almost inevitable before the end of the 21st century. [...]"

The thing I really like about Dr. de Garis, and why I think highly of him even though I have included him in this list of most influential Transhumanists, is that he and I have, surprisingly, much more in common than I had first expected would be the case. He includes a number of essays on his personal website that covers topics like geopolitics, humanity, religion, society, and many others; and almost everything I have read by de Garis I completely agreed with. I have no doubt he receives a lot of flak for his overtly expressed opinions, and I highly recommend reviewing his site as it contains some very interesting reading material.

I have wondered whether Dr. de Garis has always had such strong viewpoints on Transhumanism, or whether it is due to a sea change of thought and theory now that he is older. Given the exciting opportunity to converse with him, I would be curious to see just how closely we align in regards to the coming Transhumanism conflict. Regardless of what anyone has to offer to make me consider otherwise, I will always hold strong to my opinion that the Transhumanism construct is a very bad idea, and will create a global civil war between the organic humans, and those in opposition of naturally slow evolution. Even though he is a man I highly respect, not even Dr. de Garis could successfully convince me otherwise, particularly after reading many of his essays on the subject. I

do, however, get the slightest feeling that he has of late had a change in perception in so far as the direction artificial intelligence is being taken by irresponsible Transhumanists, governments, and especially the militaries of the world.

In closing, if I had to pick one person who would be a strong ally for my arguments against Transhumanism, and if it had to be someone who had been on the inside, I would choose Dr. Hugo de Garis, without any hesitation. Whilst he may be 'retired', it is clear that no one is going to be blowing the wind out of his sails anytime soon: this is a good thing, because we may just need him, and his knowledge and experience, in coming times.

THE TABOO MOVEMENTS OF TRANSHUMANISM

A look into the dangerous and foolish sects of The Construct, and why the growth of these movements should be smothered

Transgenderism and Postgenderism

Initially, I felt it was not necessary to include this section in the book, but after much thought and discussion with the Editor, I agreed that it needed at least some attention due to its growing popularity within The Construct.

Those who might not be familiar with the various expressions used to identify one's sexuality might not be aware of the differences between the terms describing sexual identity. The term, 'transgender', refers to people who physically and mentally feel they do not fit properly into the body they occupy, regardless of their sex. It has also been used as an umbrella term for those who are transsexual or transvestite. Transgendered beings, for whatever reason, feel uncomfortable with their bodies and wish to transform themselves to the opposite sex. They might choose to simply cross-dress (transvestite), or take a more permanent option by going through medical and hormonal augmentation (transsexual).

Transgenderism[1] has now become an integrated element of Transhumanism. After researching the topic, it seems a logical conclusion to suggest that the H+ transgenderists are a little militant in their philosophies and ideologies, and the following quote from an overtly supportive Transgenderism website is a good example of that: [2]

"The blending of gender and marking of skin are revolutionary onramps to the transcendence of fleshism. People who refuse to be labeled as male or female are the pioneers of seeing humanity as not being limited by any particular substrate, such

[1] Adrian Chamberlain, 'Transgenderism defined, in words and by the numbers', *Times Colonist*, 7 Apr. 2013, http://www.timescolonist.com/transgenderism-defined-in-words-and-by-the-numbers-1.105737 (accessed 24 Aug. 2013)

[2] From Transgender to Transhuman, http://transgender2transhuman.blogspot.com.au/ (accessed 24 Aug. 2013)

as flesh. There is a queer line of development from transgender to transhuman." - Martine Rothblatt

In some sense, quotes like this, and other articles from other militant transgenderists, appear to give the impression that they consider their idea as *innovative* for the human race. It really is quite disturbing considering that in the techno-sexual sect of Transhumanism one can find a common theme where individual sexual identity is labeled as almost *archaic*. People have a right to choose what they do with their body on an intimate level, but when they form a group that adopts the laws and ideas of Transhumanism - and then pushes the agenda onto others - I begin to get defensive.

Without getting too geopolitical about this topic, there are a few crucial points that need to be made. In the past two decades there has been a growing movement of what is known as *LGBT* (Lesbian, Gay, Bisexual, and Transgender). This movement has been heavily infiltrated and supported by 'special interest' groups that have a lot of pull with the media, Hollywood, and even governments, and it is being overtly pushed into the education system as early as Kindergarten.

Hollywood has been glorifying sexual deviance for a long time with music, movies, and the pornography industry. This has slowly caused the desensitizing of intimacy and sexual identity, which has become so blended into a milky undefined slurry that just about anything passes as acceptable now.

The Transgenderism movement, with the ideas and goals of Transhumanism obviously adopted, gives rise to the end-game of some posthumanist goals, like the a-sexual Avatars of the 2045 Initiative, or the bio-synthetic augmentation options for PRIMO Posthumanism. All of this has now created yet *another* new term within the construct: Postgenderism. In fact, this still young movement has been receiving attention on some very

popular and peer-reviewed websites like Humanity+[1], and the Institute for Ethics & Emerging Technologies (IEEE). On the IEEE's website, one can even find the explanation of what transgenderists want to obtain in their goal for Postgenderism, or, what could be referred to as *P+*:[2]

"Advocates of postgenderism argue that the presence of gender roles, social stratification, and sexual dimorphisms are generally detrimental to individuals and society. Given the potential for advanced assistive reproductive options, sex for reproductive purposes will eventually either become entirely unnecessary or all human beings will have the ability, if they choose, to both carry a pregnancy to term and father a child, eliminating any biological need for different sexes. The ultimate ethos of postgenderism is the desire for a world in which gender is optional for all people, and in which reproduction itself is a matter of individual choice and convenience. [...]"

Whilst I absolutely agree that people have the freedom to choose their sexual identity (gay, lesbian, bisexual, transgender, etc.) the science of social engineering as described above goes FAR beyond ANY acceptable or relatable *human* societal structure and into the realm of inorganic biology and unlimited alterations of the genetic form - not to mention our unique purpose as separate men and women. The above excerpt is an attempt at normalizing a concept that sounds like an insane sci-fi movie directed and produced by techno-psychotics and sexually lost zombies!

Transgenderism has *nothing* to do with the good hardworking citizens of Earth who just happen to *not* be heterosexual. This is a movement that has taken the sensitive current controversy of

[1] Roz Kaveney, 'Transgender, Transhuman, Transbeman: Uploading with Martine Rothblatt', *H+ Magazine*, 5 Oct. 2009, http://hplusmagazine.com/2009/10/05/transgender-transhuman-transbeman-uploading-martine-rothblatt/ (accessed 24 Aug. 2013)

[2] Institute for Ethics & Emerging Technologies, 'Postgenderism', http://ieet.org/index.php/tpwiki/Postgenderism (accessed 24 Aug. 2013)

LGBT, and twisted it to further the agenda of literally wiping out the desire for intimacy between two people - whether of the same or different sex. This twisted agenda coincides neatly with the trends I have seen while researching virtual reality and Posthumanism. It is the de-sexualization of humanity, in order to make one bio-cybernetic augmentation of what was once the organic human who progressed in a natural state of coexistence with all other life on earth.

This should make any respectable gay, lesbian, or transgendered individual enraged because they certainly do not wish to have their sexual identity taken away. They have, more often than not, fought for happiness, and fought to avoid ignorant ridicule. In conclusion, I see Transgenderism as a part of the genocidal goals of Transhumanism designed to ease the masses more softly into a world of Posthumanism with a postgendered non-sexual identity - and it is an attack on all who want to remain the person they worked so hard to be, no matter what sexual preference they hold.

Anarcho-Transhumanism

Definition of *ANARCHO-TRANSHUMANISM**

1. an adaptation of anarchist ideals (anti-hierarchy, anti-repression, anti-restriction) to the tenets of the Transhumanist movement in cultural, intellectual and political spheres.

*According to the Anarchopedia[1]

Anarcho-Transhumanism seeks for the liberation of humanity from repression and restrictions through the technological and scientific enhancement of humanity and human actions. Another way of defining it would be to state that it is the political, economic, and biological freedom against the tyranny of government, capitalism, and genes.

According to Anarchopedia, Anarcho-Transhumanism is:

"[T]he recognition that social liberty is inherently bound up with material liberty, and that freedom is ultimately a matter of expanding our capacity and opportunities to engage with the world around us. It is the realization that our resistance against those social forces that would subjugate and limit us is but part of a spectrum of efforts to expand human agency -- to facilitate our inquiry and creativity. This means not just being free from the arbitrary limitations our bodies might impose, but free to shape the world around us and deepen the potential of our connections to one another through it. [...]"

I thought it could not get any more absurd than when I uncovered the Transhumanism sect of Transgenderism with how the movement wished to abolish sexual identity, as well as the rest of the goals and posthuman ideologies expanded upon

[1] Anarchopedia, 'anarcho-transhumanism', http://eng.anarchopedia.org/Anarcho-transhumanism (accessed 4 Aug. 2013)

previously (see, **Transgenderism and Postgenderism**). I was even angered when I discovered that organized religion has, on some level, fallen into the deception of The Construct. Yet, just when I thought it could not get any worse, I was proven wrong when I uncovered Anarcho-Transhumanism.

Let me just express my personal opinion of anarchists first so that I can be clear as to why I know this sect of The Construct is a very dangerous addition to the agenda.

An anarchist is a person who rebels against an authoritative governing body or ruling power, and does so by means of promoting or involving themselves directly in some type of violence: which, most commonly is taking part in, or organizing, a riot. For the most part, demonstrations or protests against a governing body, is, these days, quite justified, and generally peaceful - at least, initially. Sometimes these peaceful protests turn violent, and clashes with the police or National Guard end up occurring.

By paying close attention to these episodes of sudden violence occurring during a demonstration, it is easy to spot a pattern, comparable to what has happened in the past with the Occupy Movement, racial motivated protests, and the G8 and G20 summits: suddenly, and unexpectedly to the general public, violence will break out into a full blown riot where cars are burned, senseless looting and vandalism becomes rampant, and even injury or death takes place on both sides. But how does this happen, and why?

Sometimes it is a result of a governmental order on a federal or local level where undercover law enforcement officers are utilized as 'agent provocateurs'. These are people who have been specifically assigned the task to instigate violent actions which lead to a riot for the purposes of furthering the police state agenda of the government. These are considered moments of opportunity that should not be wasted. Another reason these riots occur might be due to the occasional opportunist.

Anarchists mostly thrive on fear, chaos, and a desire to be forever remembered in infamy. Many of those involved in the anarchy movement will likely strongly disagree, but actions sometimes do speak louder than words. When was the last time you saw an organized act of anarchy in the United States? Most who are old enough to remember would probably say it was during the 1970s when the Weather Underground Organization[1] caused a public stir with bombings, jail breaks, and other acts that sparked fear into the nation. Without debating whether the WUO were justified or not, it is most definitely a firm example of organized anarchy because since then, all we have witnessed are small skirmishes of anarchists and government false flag operations. Without a doubt, most who are involved with anarchist groups are genuinely passionate about fixing the corruption of the government and multi-national corporations, but their allegiance to such groups is often grossly misguided.

The reason for my opinions regarding anarchy come from various sources, including my own experience serving in the U.S. Coast Guard, and, unofficially, the U.S. Marine Corps for a total of 12 years. I also grew up around people like my father who served in the Vietnam War, and other family members from various branches of the U.S. Military. I know how the military works as I have been there, done that, and experienced things only fellow combat veterans can truly understand. For these reasons, when I watch videos of riots and read manifestos from anarchist websites, I look at the entire picture using a military mindset.

As already stated, anarchists have no order, no infrastructure, and no real plan for the future, and will allow anyone into their squad of ignorance. This is very dangerous for those genuine men and women who wish to oppose and fight against the government for the sake of wiping the corrupt slate clean and starting over the right way; these are the men and women I

[1] Wikipedia The Free Encyclopedia, 'Weather Underground', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Weather_Underground (accessed 2 Aug. 2013)

support, and, generally, a large percentage of them are involved in some way with Constitutional Militias.

Constitutional Militias are comprised of a large percentage of veterans who are well trained and experienced in combat and military tactics. The average anarchist is somewhere between the ages of 16 and 30, and often has no experience in any sort of military training, but believes that if they read books or view websites on anarchy - or even play videos games related to such subject matter - then they will be ready for action. In a riot, or a demonstration, these kinds of instigators are easily found amongst the sea of people. I find it funny that anarchists want to remain anonymous, yet, in the past several years they have become carbon copies of each other with their backpacks, signs, bandanas, and masks. Their signs are usually not in line with the original protestors' signs, and their face is either covered in the lower half or covered completely by a *V for Vendetta* (2005)[1] mask, which has become associated with the group, *Anonymous*[2].

The anarchists are usually the first ones to break a store window, throw a Molotov cocktail, or round up a few of their comrades to tip over a car. 9 times out of 10 they are run off by the police or National Guard at some point during the riot, and they always scatter like cockroaches when the lights are turned on, as they are cowards. One must ask whether the results of such a group causing chaos and destruction is actually effective to the cause, and if not, what are the ramifications?

Clearly, it gives the original group who organized the demonstration a bad name. That group is then targeted and placed on a watch list by the Department of Justice, Department of Homeland Security, and local law enforcement through the local DHS Fusion Center, or related agencies for other nations.

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[1] *V for Vendetta*, dir. by James McTeigue (2005; Warner Bros., 2009, DVD)

[2] Wikipedia The Free Encyclopedia, 'Anonymous (group)', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Anonymous_%28group%29 (accessed 4 Aug. 2013)

Once this occurs, the mainstream media get the unofficial 'all-points bulletin' to demonize the original organization, and the key words and phrases that invoke mass mind control and fear are smeared over all forms of media, and these include the now popular, 'domestic terrorist', and words like 'extremist', 'anarchist', and even 'patriot', as used in the now negative connotation.

Once the general public become scared and loudly demand that the government does something about it, police state laws can be discussed and implemented. Without placing the anarchists at total blame for the implementation of a police state, it's certainly a catalyst when protests go awry. Only a group of well trained, experienced, and level headed men and women who oppose the government in ways that are *effective* can gain strong ground and create a force to reckon with - and the Constitutional Militias are exactly those groups who can get the job done. Anarchists only make the problem greater, and in my opinion, have no redeeming qualities.

Now that the position of an anarchist is clear we can move on to discuss this new relationship and convergence of anarchy and Transhumanism. There are four websites that are worth reviewing that are either directly part of Anarcho-Transhumanism, or are supporters of the sect. One, specifically, contains readable PDFs on their site[1] which are publications covering topics such as biohacking 101[2], and include other titles like *A Cyborg Manifesto*[3], and even *Designing the Future of Sex*[4]. The one of great interest to me is titled, *Anarcho-*

[1] Anarcho-Transhuman, http://anarchotranshuman.org/ (accessed 4 Aug. 2013)

[2] Anarcho-Transhuman, 'Biohacking 101- Winslow Strong', anarchotranshuman.files.wordpress.com/2013/05/bio.pdf (accessed 4 Aug. 2013)

[3] Anarcho-Transhuman, 'A Cyborg Manifesto – Donna Haraway', http://anarchotranshumanzine.files.wordpress.com/2012/02/cyborgmanifesto.pdf (accessed 4 Aug. 2013)

[4] Anarcho-Transhuman, 'Designing the Future of Sex – Eleanor Saitta', http://anarchotranshumanzine.files.wordpress.com/2012/11/dfos.pdf (accessed 4 Aug. 2013)

Transhumanism: A Journal of Radical Possibility & Striving[1]. The paragraph in the 'Points of Unity' section at the beginning really sets the tone for this atrocious journal:

"Opposed to all power relations and social structures limiting or constricting agency; including but not limited to capitalism, the state, racism, sexism, heteronormitivity, speciesism, and basically being a dick. Although technically if you want to become like a giant penis we suppose that's your own matter. For cognitive and morphological freedom."

Of course, to really understand the above excerpt, you have to read the journal in its entirety, because the views and ideas included in it, and in all the publications on the website, are filled with irrational anarchy-inspired insanity, with influences driven by Transhumanism.

In the *Designing the Future of Sex* publication, I have found so much techno-sexual garbage that it is enough to make me want to print it out just so I can burn the damn thing. The publication covers the importance of 'emergency bootycalls', and how, in a Transhumanist world, there will be computer network programs that will behave like 'booty call finders', and will go through your A-list, B-list, or C-list, depending on availability. An excerpt can be found below. It is absolutely despicable, and yet, totally in line with the Transhumanist agenda of sexual desensitizing.

"Fuck buddies are great. Everyone should have at least a half dozen. Scheduling, though, royally sucks.

"You decide you'd like to get laid tonight, but you don't really have anyone specific in mind. So you send out an SMS to the Emergency Bootycall System. It propagates out, first going to

[1] Anarcho-Transhuman, 'Anarcho-Transhumanism: A Journal of Radical Possibility & Striving', http://anarchotranshumanzine.files.wordpress.com/2012/02/anarchotranshuman1.pdf (accessed 4 Aug. 2013)

your A-list, and then if no one has taken you up on it, your B-list and your C-list. You've told
the system that you'd like dinner beforehand as well, so the system looks at the preferences you and the respondent have both set and selects a location. It looks at your calendars, figures out when you're both going to be off work, and sets a time, and if necessary, sends a reservation request.

"Say everyone you already know is busy. The system asks you if you like to throw out a wider net. Maybe you'd like a surprise. You tell the system to set up a date. It tells you to be at a specific place and time, and you meet someone there. You've already told it what you're looking for, in general and tonight, and it knows who's off limits. The people whom you've slept with have vouched for you, in a distributed reputation system, and other people have decided how much they trust those people's opinions, and about what, so when a stranger sees your request, they have a measure of what the community thinks of you, and how distant you are socially. [...]"

That is just the tip of the iceberg, and not just in this publication, but all the others that are available on the *Anarcho-Transhuman* website.

I have noticed that some of the same prominent people are interconnected between the various websites concerned with this subject, and although these sites appear to have a small audience, they should not be disregarded as taboo or insignificant: it only takes a tiny seed to grow a mighty Ponderosa tree.

On the *Anarchism & Transhumanism: Where the Future = Liberation* website[1], its mission statement, of which, everyone concerned about this subject simply must see, begins with:[2]

[1] Anarchism & Transhumanism: Where the Future = Liberation, http://anarcho-transhumanism.net/ (accessed 4 Aug. 2013)

[2] Anarchism & Transhumanism: Where the Future = Liberation, 'Mission Statement', http://anarcho-transhumanism.net/about/ (accessed 4 Aug. 2013)

"Anarcho-Transhumanism is a branch of Anarchism that takes seriously the values of traditional and modern Anarchism and combines it with Transhumanism and Posthumanism. [...]"

They even have their own insignia which is a combination of a more digital Transhumanistic look with that of the commonly recognized anarchy symbol. This website seems to be fairly new as of 2013, and, although I am not sure if it will grow, it has the potential to fuel the fire of this techno-influenced anarchy.

Out of all of them, the *H+ Anarcho-Transhumanism* website[1], which opened in 2006, looks to be the longest running one. It is mostly a blog site, but I did find information in older posts about Anarcho-Transhumanism workshops and other gatherings, and this shows me that there is definitely a following of some sort, however small or large.

This final website example is more of a supportive site for the cause of Anarcho-Transhumanism - and this one makes my toenails curl out of disgust. It gets a lot of critics - and rightfully so - but the person who owns and manages the site has proven, through their description of it, that they very much support anarchy, Transhumanism, and Transgenderism. Indeed, I am not even sure if this person is male, female, or a little of both.

The extreme and outlandish posts on this person's website hit the outer reaches of absurdity, and can only be described as concerning to people like me. Even the name of the website is something of an insult to the moral ethics of people like myself. A website called, *Queering the Singularity*[2], should be a cause of alarm for people - and if it is not, then perhaps they should reconsider their values.

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[1] H+ Anarcho-Transhumanism, http://anarchotranshumanism.com/ (accessed 4 Aug. 2013)

[2] Queering the Singularity, http://queersingularity.wordpress.com/ (accessed 4 Aug. 2013)

When it comes down to it, this sect of Transhumanism could either fizzle out into the vortex of cyberspace, or it could be capitalized on by the more extremists of The Construct in the same ways the corrupt governments of the world capitalize on the troublesome anarchist groups. To ignore Anarcho-Transhumanism would be the same as to ignore false flag operations or police brutality. It obviously exists, it is proving to be a threat, and if it is ignored, it could grow into a rouge group that creates a global network of biohackers[1], transgender propagandists, cyber-sexual desensitizing social engineers, and provocateurs for the Transhumanism agenda.

Whilst I realize this is probably as controversial as the previous section (see, **Transgenderism and Postgenderism**), I hold strong the importance and legitimacy of concern regarding both subjects. We simply cannot allow these groups to gain further ground, because if we do, then the fight between the organic human and the transhuman will only grow more volatile until we reach beyond the point of no return.

[1] Wikipedia The Free Encyclopedia, 'Biohacking', Wikimedia Foundation, Inc., http://en.wikipedia.org/wiki/Biohacking (accessed 21 Aug. 2013)

INSTITUTES, SPECIAL PROJECTS, AND MISCELLANEOUS ENTITIES

Major branches in the multiplex, and their connection in the TPS Construct

PREFACE

Before beginning this chapter, the reader must first understand that some of the following entities may not directly promote or claim affiliation with the Transhumanism construct, but it is important to take note of why I have specifically selected the following to be featured in this chapter. This selection, of course, encompasses only a small few chosen from a vast and growing collection that I have researched in quite serious depth over the past several years.

To give the reader a basic understanding of each, I will describe exactly why they made it into this book, as well as include links or references to follow up on in the reader's own time. Sometime in the near future I anticipate another volume of work covering these entities, providing the reader a more in depth structure of both the positives and negatives of each, depending on their level of involvement in the H+ multiplex construct.

2045 Strategic Social Initiative

In February of 2011, Russian entrepreneur, *Dmitry Itskov*[1], founded the 2045 Initiative and has referred to it as being the path to Neo-Humanity, as the 'foundation of the ideology of the *Evolution 2045* party'. Dmitry, who is an extremely wealthy person, has recruited the best Russian specialists in the fields of neural interfacing, robotics, artificial organs, and systems. The goal of his dream may seem like something that can only exist in the far reaches of science fiction, but one review of the website and the credentials of who the members of this plan are, will leave some questioning their own doubt.

The goal of the 2045 Initiative is layered like an onion with many facets, in order to make the ultimate outcome obtainable. Dmitry has a precise timeline supported by some of the leaders within the Transhumanism construct. As mentioned many times during the course of this book, Transhumanism is *not* the goal, but the *process* currently in motion in order to reach the final stage of that which has several names: Posthumanism, Human 2.0, The Singularity, or, as Dmitry calls it, *Neo-Humanity*. The first two paragraphs of the 'About Us' section on the website reveal a lot:[2]

"The main goals of the 2045 Initiative: the creation and realization of a new strategy for the development of humanity which meets global civilization challenges; the creation of optimal conditions promoting the spiritual enlightenment of humanity; and the realization of a new futuristic reality based on 5 principles: high spirituality, high culture, high ethics, high science and high technologies.

[1] Socrates, 'Dmitry Itskov on Singularity 1 on 1: It's Time To Think About Who We Are And What Is Our Place In The Universe', *Singularity Weblog*, http://www.singularityweblog.com/dmitry-itskov-on-singularity-1-on-1-its-time-to-think-about-who-we-are-and-what-is-our-place-in-the-universe/ (accessed 31 Jul. 2012)

[2] 2045 Strategic Social Initiative, 'About us', http://2045.com/about/ (accessed 31 Jul. 2012)

"The main science mega-project of the 2045 Initiative aims to create technologies enabling the transfer of [an] individual's personality to a more advanced non-biological carrier, and extending life, including to the point of immortality. We devote particular attention to enabling the fullest possible dialogue between the world's major spiritual traditions, science and society. [...]"

This is the technology seen in the blockbuster movie, *Avatar* (2009)[1], coming to real life if they are successful - and I believe that as long as they continue on with their schedule they will be. The technology for most of what his team is working on already exists in Above Top Secret projects kept alive with the U.S. Government's black budget - but for Dmitry's team, the challenge is melding the technologies they have access to, in order to achieve their goal.

To further promote this idea of a new humanity, and in order to recruit more minds, Dmitry has created the Global Future 2045 International Congress[2] that had its first annual meeting in Moscow in February, 2012. The second international Global Future 2045 congress just happened at the Lincoln Center in New York City in the middle of June 2013. The list of speakers who attended was an all-star cast of top Futurists - and, of course, Transhumanists.

Obviously, the 2045 Initiative is onto something big or these people would not have wasted their time. Some of the attendees are names that most have never heard of outside this world, including *Dr. Hiroshi Ishiguro*[3], Director of Intelligent Robotics Laboratory, and *Dr. Ben Goertzel*, Founder of OpenCog Foundation and Chairman of Biomind LLC, among

[1] *Avatar*, dir. by James Cameron (2009; 20th Century Fox, 2010 DVD)

[2] Global Future 2045 International Congress, http://gf2045.com/ (accessed 31 Jul. 2012)

[3] Advanced Telecommunications Research Institute International (ATR), 'Hiroshi Ishiguro Laboratory', http://www.geminoid.jp/en/index.html (accessed 11 Jan. 2013)

others. One other speaker that most might have heard of above others was *Ray Kurzweil*. There were many more big names with big credentials from every single branch of technology that could be considered beneficial to Transhumanism, and not one was left untouched.

Here is the short timeline version of the *2045 Initiative Avatar Project Milestones* that all are working toward making possible:

- **Avatar A: 2015 - 2020 -** A robotic copy of a human body remotely controlled via BCI (Brain-Computer Interface).
- **Avatar B: 2020 - 2025 -** An Avatar in which a human brain is transplanted at the end of one's life.
- **Avatar C: 2030 - 2035 -** An Avatar with an artificial brain in which a human personality (soul) is transferred at the end of one's life.
- **Avatar D: 2040 - 2045 -** A hologram-like Avatar.

To fully understand each of these 'Avatars', how they intend to make them possible, and the technology they plan to use, it is best to read the material on the website.

Connection to Transhumanism: The 2045 Initiative really speaks for itself through and through due to all the material provided on the website. With key speakers like Ray Kurzweil and other scientists that have specialties in neuroscience, nanotechnology, biotechnology, and artificial intelligence, the entire public purpose of this 'initiative' leads undeniably to the fact that it IS a Transhumanist project implemented specifically to reach a posthumanist goal.

America 2050

Most movies that are set in a futuristic and post-apocalyptic era usually consist of mega-cities where the population resides behind high fortified walls which protect everyone against a desolate waste land, similar to what is depicted in *Judge Dredd* (1995)[1], or, *Priest* (2011)[2]. The average person would wave this off as a never-possible scenario, and would rather continue to live in their happy-go-lucky world of ignorance and lack of forethought. Yet, in a somewhat quiet presence that is not shared by the mainstream media, organizations continue to grow by working to create not only these mega-cities that are completely engulfed by 'Smart' technology, but those that are looking to go further by creating mega-regions. None, to me, seem so obviously connected to Transhumanism and Agenda 21 as does America 2050.

America 2050[3] was launched in 2005 by the Regional Plan Association for the purpose having a mega research and policy think-tank on matters such as transportation, infrastructure, water resources, environmental issues, population, and more. Reading through the Agenda 21 inspired website should shake up any person who has followed the insidious acts of the UN with its policies on Smart Growth and A21. This sustainable policy program has grown to have much influence with partnered organizations and has published quite extensive reports on plans and focuses for implementing America 2050's agenda.

What they are looking at accomplishing will be more than just mega-cities: mega-regions, as mentioned above, though not specific enough in detail at the present time, could replace states

[1] *Judge Dredd*, dir. by Danny Cannon (1995; Hollywood Pictures, 2006 DVD)

[2] *Priest*, dir. by Scott Stewart (2011; Screen Gems, 2011 DVD)

[3] America 2050, Regional Plan Association, http://www.america2050.org/ (accessed 1 Aug. 2013)

altogether, but some suggest they would be more like regional zones. The determination for what makes a specific mega-region, will include the following geographical and cultural considerations:[1]

- environmental systems and topography
- infrastructure systems
- economic linkages
- settlement patterns and land use
- shared culture and history

The most interesting consideration is the final point on 'shared culture and history', since certain special interest groups exist behind the scenes, and some in plain sight, working tirelessly on infecting The United States with the multiculturalism agenda that actually works to destroy individual cultures. At the time of writing, America 2050 has already established 11 mega-regions, and are even expanding these regions internationally. The mega-regions are listed as follows:[2]

Arizona Sun Corridor
Location: Arizona - From north of Phoenix south to the border with Mexico
Principal Cities: Phoenix, Tucson

Cascadia
Location: Along the Pacific Ocean north of California, composed of parts of Oregon, Washington, and British Columbia
Principal Cities: Portland, Seattle, Vancouver

[1] America 2050, 'Megaregions', Regional Plan Association, http://www.america2050.org/content/megaregions.html#more (accessed 1 Aug. 2013)

[2] America 2050, 'Megaregions', Regional Plan Association, http://www.america2050.org/content/megaregions.html#more; second source in 'Maps' section on website, http://www.america2050.org/maps/ (accessed 1 Aug. 2013)

Florida
Location: The east and west coast, central and south Florida
Principal Cities: Miami, Orlando, Tampa, Jacksonville

Front Range
Location: Runs North-South along the I-25 Corridor, from Albuquerque, NM in the South to Denver/Boulder, CO in the North
Principal Cities: Albuquerque, Santa Fe, Colorado Springs, Denver

Great Lakes
Location: The Midwest - Including parts of Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Michigan, Ohio, Kentucky, and Pennsylvania
Principal Cities: Chicago, Detroit, Pittsburgh, Cleveland, Minneapolis, St. Louis, Indianapolis

Gulf Coast
Location: The Gulf Coast - Including parts of Texas, Louisiana, Alabama, Mississippi, and the Florida Panhandle
Principal Cities: Houston, New Orleans, Baton Rouge

Northeast
Location: The Northeast and Mid-Atlantic seaboard - From Northern Virginia to Southern Maine, bounded by the Appalachian Mountains to the west and the Atlantic Ocean to the east.
Principal Cities: Boston, New York, Philadelphia, Baltimore, Washington D.C.

Northern California
Location: Northern California, along the Pacific Ocean from Sonoma County to Monterey County, inland to Douglas County, Nevada. Includes the 9-county Bay Area and 17-County Commute Shed.

Principal Cities: Oakland, Reno, Sacramento, San Jose, San Francisco

Piedmont Atlantic
Location: Southeast U.S. - From Birmingham in the southwest to Raleigh-Durham in the northeast
Principal Cities: Atlanta, Birmingham, Raleigh-Durham, Charlotte

Southern California
Location: Southern California / Nevada from the border with Mexico to Santa Barbara and east to Las Vegas
Principal Cities: Los Angeles, San Diego, Anaheim, Long Beach, Las Vegas

Texas Triangle
Location: Eastern Texas
Principal Cities: Austin, Dallas/Fort Worth, Houston, San Antonio

As far as the international mega-regions[1], America 2050 is currently looking at including Spain, Canada, and Western Europe. Each mega-region described above has more information, including maps, available on the website.

The National Committee for this project is comprised of men and women who represent universities, corporations, and even the government, from departments such as the Department of Interior, and the Department of Transportation. A huge focus as well are mega-regional high speed rail systems that are similar to the money pit project being attempted in California.

Three key areas to focus on regarding plans and policies that they are working toward involves water, environmental

[1] America 2050, 'International Megaregions', Regional Plan Association, http://www.america2050.org/megaregions/international.html (accessed 1 Aug. 2013)

landscapes, and energy & climate change. As you begin to review some of the publications pertaining to their focuses in these areas, you begin to realize that much of it is indeed mirrored with Agenda 21 and Smart Growth. It is intended to push all rural residents into the center-points (cities) of the mega-regions mentioned in the list of eleven.

Anyone who has studied or is at least somewhat aware of Smart Growth, should realize it is very much an element of Transhumanism. We can see this in several documentaries on the subject, and even in the docudrama entitled, *2057: The City* (2007)[1]. In this film, all people reside in mega-cities that are controlled by a central cybernetic network. A similar scenario is being looked at by projects like The Venus Project, as mentioned earlier. Smart Growth means incorporating 'Smart' technology (i.e. Transhumanism technology), and by doing so, you force the residents to be almost entirely dependent upon the machine.

Whilst there is no mention on the America 2050 website of The Singularity, or Transhumanism, once you study this subject enough and have a good understanding of how Transhumanists wish to have the infrastructure of their new world designed, it is logical to conclude that America 2050 relates *directly* to this movement. They are working on making policies for water, and the environment - and are using the fraud of climate change to assist in pushing this agenda.

Mega-regions and mega-cities are being designed now to stack and pack people into mega-skyscrapers which would be nothing more than a techno-ant farm. Most of these residential buildings will be located close to the high speed transit system and personal vehicles will either be restricted, or eventually become non-existent. In most cases, the lower floors of these massive residential buildings will be the location where the residents

[1] *2057:The City* Season 1, Episode 2, dir. by Meike Hemschemeier and Lars Montag (2007; Discovery Channel, Online 2011) http://topdocumentaryfilms.com/2057-the-city-of-the-future/

also work - in a highly sophisticated automated building linked into a central neuro-network so that at the epicenter of the city, the cybernetic 'Watchers' will be able to log, monitor and control everything alongside the human interfaced partners.

We are seeing these central neuro-networks being utilized already with apartment and condo complexes, where the lower floors provide shopping, grocery stores, and other amenities - and all right next to the city rail system. These exist in Los Angeles, Chicago, New York, Portland, and other areas. I have even met people who have lived and worked in the same building, and these buildings have high tech security systems that require biometric identification in order to pass through. Imagine that on a much larger mega-regional scale.

Our natural rights to own free-range and rural organic farms to grow food, collect rainwater, and raise healthy animals must not be taken away. We cannot allow ourselves to be shifted and shovelled into mega-regions or mega-cities, only to be slaves to the posthumanist world. No organization has a right to decided how and where we must live. If such an influential project, or entity, wishes to 'organize' and fix the current state of the country, they should start with Washington D.C. because that is the epicenter of our localized troubles. Perhaps then they could continue with the rest of the globe.

Earth 2 Hub (Earth 2.0)

Before you read any further, I highly recommend taking a quick break to watch a 15 minute film, entitled, *Earth 2.0 Initialization - Director's Cut*[1] because that film, which can be found free online, was made by Earth 2 Hub[2] and is an excellent overall description of what Earth 2.0 is all about. Some may recognize the famous person in the beginning of the film, and I must take this moment to express as a side note, my disappointment in his understanding of such things in this area of controversy, since I have met and spoken with him myself. However, personal opinions aside, please do watch the short film, and then return back here to continue reading.

I take issue with the description of who and what Earth 2 Hub is all about, because it is fairly general for covering a vast number of topics and ideas for creating this 'better world', or, Earth 2.0 as they refer to it. As you browse through the website you will find a lot of discussion or vague insinuations of virtual reality, biomimicing, citizen science, Smart technologies, augmented reality, and cybernetic type cities to be built in almost replica fashion to those seen in the previously discussed movie, *Tron* (see, **Virtual Reality**).

Here is where it gets tricky with entities like Earth 2 Hub: they make excellent points with regard to pollution, population growth, and over consumption, but they focus solely on solutions that can be easily compared to The Venus Project (more on that later). They discuss 'pop-cities', which are cities usually defined as a 'Smart' technology city, and these are controlled by a centralized AI super computer network like

[1] *Earth 2.0 Initialization - Director's Cut*, webpage, http://earth2hub.com/projects/earth_2_0_feature_film; Youtube video link - http://www.youtube.com/watch?v=zAWuSj8dOrw, uploaded 25 Oct. 2011 (accessed 2 Aug. 2012)

[2] Earth 2 Hub, http://earth2hub.com/ (accessed 2 Aug. 2012)

what is depicted in the docudrama *2057: The City* - another one I recommend watching.

Whether the tricky language that Earth 2 Hub used was on purpose, or written by someone who does not understand how the average person processes information these days, unfortunately, it does leave me with further suspicion as to the nature of their motives. Earth 2 Hub is *not* unique, though - I have come across a lot of these types of entities who wish for this sort of Earth 2.0 using 'eco-friendly' cybernetic systems of clean energy and drinkable water. But, as much as I do support better ideas to begin phasing out fossil fuel and deforesting, I feel there are better approaches that do not involve being under the thumb of a machine.

Connection to Transhumanism: The idea of living in this sort of cybernetic 'biosphere-like' Earth 2.0 where The Singularity is held sacred in an almost matrix type of euphoria really bothers me. Personally, I wish not to be involved in any augmented reality, which is a technology Earth 2 Hub does not deny supporting. Whenever an entity like Earth 2 Hub, in a cybernetic fashion, promotes their goals for creating a new global way of life, it resembles a likeness to Agenda 21 ideologies, as well as having an almost *Brave New World* flair to it - with flashy graphics and bright colors and the promise of re-establishing a new harmonious relationship between humanity and nature, promoting new technologies as being the bridge in between.

Sometimes, it is wise to pay close attention to the language used when a group like Earth 2 Hub is trying to appeal to the masses. Most people don't pay close enough attention to the deeper details, and that is how they become entangled. Someone like myself, who has a solid understanding of Transhumanism, can look beyond the bread and circus to see what is really happening behind the curtain, and this why research is an extremely important habit for everyone to pick up.

The FBI Face Recognition and Biometrics Program

I mean no offence to the reader when I say that this one is a 'no-brainer'. Face recognition and biometrics are technologies incorporated in Transhumanism that can be absolutely verified on many highly regarded websites, both for, and against, the movement. So this one does not require too much discussion as I will be providing you with the best references that exist for how the Federal Bureau of Investigation[1] utilizes these two technologies.

I have just two points to make on the matter:

(1.) *Face Recognition* is what many refer to as 'Big Brother spy technology' and this is truly correct. It is used by the intelligence community[2], Google[3], Facebook[4], the military[5], the Department of Homeland Security[6], and others[7].

(2) *Biometrics* is defined as the measurement and analysis of unique physical or behavioral characteristics (such as

[1] FBI Biometrics Specifications, https://www.fbibiospecs.org/ and FBI Biometric Center of Excellence, http://www.biometriccoe.gov/ (accessed 7 Jul. 2013)

[2] The Biometric Consortium, National Institute of Standards and Technology (NIST), National Security Agency (NSA) http://www.biometrics.org/ (accessed 4 Jul. 2013)

[3] Sara Gates, 'Google Facial Recognition Patent: Users May Be Able To Make A Face Instead Of Entering A Password', *The Huffington Post*, 6 Jun. 2013, (accessed 3 Jul. 2013)

[4] Two sources: Paul Ducklin, 'Facebook is turning face recognition back on – so here's how to check your 'photo tagging' settings', *Naked Security*, 2 Feb. 2013, http://nakedsecurity.sophos.com/2013/02/02/facebook-turns-facial-recognition-back-on/; Unknown Author, 'A face in a billion: Facebook to include profile pix in facial recognition database', *Russia Today*, 30 Aug. 2013 (both accessed 30 Aug. 2013)

[5] Biometrics Identity Management Agency (BIMA), U.S. Department of Defense, http://www.biometrics.dod.mil/ (accessed 7 Jul. 2013)

[6] U.S. Department of Homeland Security, 'Office of Biometric Identity Management', http://www.dhs.gov/obim (accessed 4 Jul. 2013)

[7] Biometrics.gov, http://www.biometrics.gov/ (accessed 4 Jul. 2013)

fingerprint or voice patterns), especially as a means of verifying personal identity. So, it is yet another technology that is highly regarded by the government and is being developed further by Transhumanism institutes.

Part of the more 'policing' aspect of the Transhumanism construct involves the all encompassing 'Singularity'; this being a superintelligent AI computer network, where, for example, you could turn on your automated car with a biometric retinal scan, or you will be denied leaving the mega-metropolis city's perimeter unless your face recognition is cleared. These two technologies cannot exist without the technology of supercomputing and massive internet network coalitions of support and control using neuroscience, nanotechnology, and biotechnology. This is clearly categorized as a field of Transhumanism.

Connection to Transhumanism: Refer to the three sections within this book, entitled, **Radio-Frequency Identification (RFID)**, **Cybernetics**, and, **Brain-Machine Interface**.

The Future of Human Evolution Website

During the course of preparing to write about this information packed website, I discovered that the entire site is currently under construction. If or when it is back online I highly recommend accessing it because it is yet another great source for learning about the Transhumanism/Posthumanism/Singularity agenda - something I have come to label as the TPS Construct.

I had fortunately archived the website prior to its closing so I am able to list the main topics they cover and view the way the website is structured, however, I will not get into the details about who founded it, what their mission statement is, or anything else that would require cross referencing, because, as of now, the reader has no way to verify this information.

When online, the FHE website[1] did contain information found similarly on other Transhumanism news sites like singularityhub.com[2], and Robotics Zeitgeist[3]. Main news topics usually included artificial intelligence, genetic engineering, nanotechnology, space colonization, future visions, a segment dedicated specifically to Transhumanism itself, time travel, and more.

Hopefully the website *will* return as I do recommend using it as a tool for further research to accompany one's Transhumanism studies.

[1] The Future of Human Evolution, http://www.futurehumanevolution.org/ (accessed 10 Oct. 2011)

[2] Singularity HUB, http://singularityhub.com/ (accessed 27 Aug. 2012)

[3] Robotics Zeitgeist, robotzeitgeist.com (accessed 22 Aug. 2012)

Humanity+

Humanity+ has already been mentioned on a number of occasions throughout this book, so this is more of a centralized review on the organization that, by name alone, proves its guilty agenda. It was co-founded in 1998 by Transhumanism leaders *Nick Bostrom*, and *David Pearce*, as the originally titled World Transhumanist Association[1], but was later renamed, Humanity+[2].

As was stated earlier, Bostrom and Pearce are very influential people in the Transhumanist movement, thus, it goes without need of mention that Humanity+ is not simply a small scale experimental project. With such affiliates and advisors as *Ray Kurzweil*, *Aubrey de Grey*, the Singularity University[3], and the Foresight Institute[4], this organization certainly reaches far and wide. Besides holding Humanity+ conferences, it has expanded to include the publication of a magazine; its own declared universal holiday (Future Day); H+ TV; Humanity+ Press; its own fund raiser to give prizes for technological innovations; the Humanity+ Student Network; and much more.

One could really consider Humanity+ as the global central network hub for all things Transhuman related - and it is accepting membership. The following are two short segments taken from the website's 'About' section[5], inserted here to give you a better understanding of what this organization is all about.

"Humanity+ is dedicated to elevating the human condition. We aim to deeply influence a new generation of thinkers who dare

[1] Wikipedia The Free Encyclopedia, 'Humanity+', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Humanity%2B (accessed 2 Aug. 2012)

[2] Humanity+, http://humanityplus.org/ (accessed 2 Aug. 2012)

[3] Singularity University, http://singularity.org/ (accessed 4 Aug. 2012)

[4] Foresight Institute, http://www.foresight.org/ (accessed 1 Aug. 2012)

[5] Humanity+, 'About', http://humanityplus.org/about/ (accessed 2 Aug. 2012)

to envision humanity's next steps. Our programs combine unique insights into the developments of emerging and speculative technologies that focus on the well-being of our species and the changes that we are and will be facing. Our programs are designed to produce outcomes that can be helpful to individuals and institutions.

"Approximately 6000 people belong to Humanity+ from more than 100 countries, from Afghanistan to Brazil to Egypt to The Philippines. Supporting and sustaining members elect the Board, and participate in Humanity+ leadership and decision-making. Humanity+ members also participate in more than two dozen chapters around the world. [...]"

Connection to Transhumanism: In short, this organization's main website is a one-stop shop type of information - much like Singularityhub.com and other websites are becoming. In time it will become clearer and clearer to the public about how much of the Transhumanism construct is intertwined, like a six-degrees of separation game. I see no reason to include any further debate about why Humanity+ is related to Transhumanism, as it is truly located in *the* epicentre of the movement.

Human-Robot Interaction (A Research Portal for the HRI Community)

The HRI Community[1] is a portal that serves as a gateway for Human-Robot Interaction research and development. It is mostly conference based and has been going on annually at various locations throughout the world since 2006. Since 2007 it has been sponsored by the Association for Computing Machinery (www.acm.org) and the IEEE (www.ieee.org).

There really is nothing complicated or hidden about the HRI portal as can be seen quite obviously on their homepage. Their main focus is on the multidisciplinary study of Human-Robot Interaction which is one of the main studies of Dr. Cynthia Breazeal, one of the 'Big Ten' Transhumanists, as was covered in a previous chapter. Interestingly enough, but not surprising, is, yet again, another six-degrees of separation within this large Transhumanism community, because it just so happens to be that Dr. Breazeal is named on the HRI website as a past member of their Steering Committee. [2]

The Steering Committee is an organization that is best learned about by browsing their journal and conference internet pages. The trouble with this technology as I have stated before is that the more people interact with AI robots, the worse their human-to-human interaction social skills will become until most will be completely inundated by this and other technologies related to HRI, continuing in this fashion until their personal world is a sedentary-cybernetic lifestyle. Personally, I do not care how flashy or fancy an AI robot becomes, since I certainly would never incorporate one into my life - and if that means my life

[1] Human-Robot Interaction, http://humanrobotinteraction.org/ (accessed 15 May 2013)

[2] Human-Robot Interaction, 'Steering Committee', http://humanrobotinteraction.org/steering-committee/ (accessed 15 May 2013)

becomes slightly more challenging in this growing movement, then so be it.

Connection to Transhumanism: HRI is the product of a number of Transhumanism technologies combining artificial intelligence, augmented reality, cybernetics, and related fields like behavioral and social sciences. Many Futurists support HRI technology while working in the field, and I have found many to also be supportive of the Transhumanism construct. There is no question in my mind that the HRI portal qualifies in this grouping considering it is a network doing its part in assisting the goal of Posthumanism.

The Hybrid Reality Institute

The name really says it all when it comes to this institute, and anyone who visits the homepage[1] of its website will be welcomed by the disturbing image of a woman snuggled up in bed, right in the arms of a humanoid-robot. This speaks *volumes* about where this institute stands as far as Transhumanism is concerned.

The institute is a research and advisory group that focuses on human-technology co-evolution, geotechnology, and innovation. In other words, it is most definitely a Transhumanism institute.

The Founder and Co-Director of the HRI is *Ayesha Khanna*[2], and she is no small player in this movement. Look hard enough, and her name pops up almost as steadily as someone like *Nick Bostrom*. Khanna has not only a top position with HRI, but she sits on the Board of Advisors for Humanity+, as well. She is also a Faculty Advisor at the Singularity University, Director of the Future Cities Group, was the Founder and Editor-In-Chief of EGO Magazine, and is the current CEO of Urban Intel (http://urbanintel.co/), Asia's premier knowledge and learning hub.

It is clear that the Hybrid Reality Institute has some influence in the world of Transhumanism with such a highly regarded person as Khanna in their ranks.

Besides providing a large substantial amount of information on the website, HRI holds 'Salons' all over the world from Singapore to New York City, and the participants in these meetings of the minds come from all fields of technology,

[1] Hybrid Reality Institute, http://hybridreality.me/ (accessed 2 Aug. 2012)

[2] Hybrid Reality Institute, 'Directors', http://hybridreality.me/about/directors/ (accessed 2 Aug. 2012)

health and medicine, security, education, and so on. It is hard to find the reports or minutes from these elite type of meetings, but subjects that have been made the focus are listed on the website, and they range from nanotechnology to virtual/augmented reality, and even to bioenhancement.

It is all too clear which agendas they are pushing and moving towards, and these include the augmented reality of a human-robotic hybrid society living in augmented 'Smart cities'. The three areas of research they have listed, currently, are as follows:[1]

- Generative Cities: Technology, Innovation, Inclusiveness: More than fifty percent of humanity now lives in cities, many of which are creaking under the weight of crumbling infrastructure. How can we use technology to create an urban operating system that promotes sustainability, economic growth, and enhanced citizenship?

- Geotechnology: Power Diffusion and Global Scenarios: National and international security are increasingly driven by and dependent on disruptive technologies from communications to biology to neuroscience. These trends will impact cyber-security, personal and corporate data protection, and political stability around the world.

- Education and Personal Learning Networks: Our Industrial Age education system is abysmally inadequate in preparing and students for the disruptive and rapidly changing markets of the 21st century. Traditional paths of secondary and university education need to be augmented or even replaced with personalized training enabled by technology and social media.

[1] Hybrid Reality Institute, 'Research', http://hybridreality.me/research/ (accessed 2 Aug. 2012)

It seems completely plausible that the term, 'Generative Cities', is another way of describing 'Smart cities', designed to promote 'Smart' growth'. Anyone who has read about the ideas behind the Smart Growth city plans should know that it means more CCTV cameras, sole dependency on mass transit, living in automated apartments that are stacked and packed atop one another in such a way that the residents need only to go to the bottom floor or adjoining building to go to work, and the Transhumanism technology only expands into everyday life from there to eventually reach the climatic agenda of Posthumanism.

Connection to Transhumanism: This is yet another institute that needs no further justification of the argument concerning its connection to the Transhumanism construct.

IARPA

Imagine, if you will, that the United States Intelligence Community (CIA, NSA, DIA, etc.) decided they wanted their own version of the world's largest defense research group - DARPA. So, with inspiration from DARPA, and, I suspect, their direct assistance, as *well* as mixing in most of the technologies of the Transhumanism construct, and furthering their global grip on being the leader in intelligence gathering and espionage, they create an agency that stands alone.

Just as in the example above, the agency known as IARPA[1] was born, and is one of the most secretive agencies of the United States. The Intelligence Advanced Research Projects Activity is operated under the Office of the Director of National Intelligence (ODNI)[2], whose structure was modeled from that of DARPA's. In fact, if you are familiar with the layout of DARPA's website, including how programs and solicitations are displayed, it is almost a mirror image. I was even surprised that after all my years of deeply researching the intelligence community, military industrial projects, and Transhumanism, it was only during the early part of writing this book that I discovered IARPA.

What I found left no doubt that it needed to be mentioned here, however briefly, because IARPA has a vested interest in utilizing Transhumanism technology to further the edge for the U.S. Intelligence Community. At present, I am focused on researching *all* IARPA programs, which, in time, I will write more extensively about.

Unlike DARPA, the CIA, or even the DHS, IARPA, in all

[1] The Intelligence Advanced Research Projects Activity, Office of the Director of National Intelligence (ODNI) http://www.iarpa.gov/ (accessed 24 Jun. 2013)

[2] Office of the Director of National Intelligence (ODNI) http://www.dni.gov/index.php (accessed 11 Sep. 2011)

reality, has little written about it when considering how vast the internet is. Perhaps so few know about IARPA as it is only in its early days, but my intuition tells me it is because the projects - or programs, as they, like DARPA, refer to them - are things they want the general public to be unconcerned with, so the information is very much hidden in plain sight. Doing a search on Google only comes up with 81,200 results, which is not much at all in the greater scheme of things. To find exactly what IARPA is hiding, it is best to focus on their website to firstly uncover how it all began.

Using IARPA's own words, the following two paragraphs should give the reader enough to digest initially, and I will then continue by including further detail about the inner workings of the entity over the remainder of this section:[1]

"The Intelligence Advanced Research Projects Activity (IARPA) invests in high-risk, high-payoff research programs that have the potential to provide the United States with an overwhelming intelligence advantage over future adversaries. IARPA works very closely with the various members of the Intelligence Community to ensure that its programs address relevant future needs and to facilitate the transition of demonstrated capabilities. However, IARPA is not an operational organization, and it neither collects raw intelligence nor produces and disseminates intelligence analyses. To ensure organizational agility, IARPA focuses on long-term, 3-5 year programs rather than the short-term time horizons. [...]

"IARPA tackles some of the most difficult challenges across the intelligence agencies and disciplines, and results from its programs are expected to transition to its IC customers. IARPA does not have an operational mission and does not deploy technologies directly to the field. [...]"

[1] The Intelligence Advanced Research Projects Activity, Office of the Director of National Intelligence (ODNI) 'About', http://www.iarpa.gov/whatis.html (accessed 24 Jun. 2013)

In other words, they act in a very similar way to DARPA in how they solicit, fund, and award contracts to various private and public entities to work in research and development for a specific program initiated by IARPA. In this way, it becomes the separate partner who delivers the new technology, and IARPA merely disseminates it to the various intelligence agencies if deemed useful - very much like what DARPA does, but on a slightly smaller scale because IARPA is still fairly new. IARPA also claims to *not* have an operational mission, but I find this contradictory in itself because if you study all the programs they have initiated, they all relate, in many different aspects, with what the intelligence community does.

It would make a reasonable amount of sense instead to say that IARPA's operational mission is to develop and test new technology for the intelligence community, as IARPA state in their own words that they invest in high-risk and high-payoff research programs to give the U.S. intelligence agencies a cutting edge over other countries. Is that not also something that can be considered an operational mission? For being such a young agency, or, 'activity', under the ODNI, it sure has been busy and covered a lot of ground.

The brief history of IARPA, as included on their website, is stated as the following:[1]

"IARPA was created in 2006 to conduct cross-community research, target new opportunities and innovations, and generate revolutionary capabilities, while drawing upon the technical and operational expertise that resides within the intelligence agencies. IARPA's structure was modeled on that of the Defense Advanced Research Projects Agency. IARPA's programs are uniquely designed to anticipate the long-term needs of, and provide research and technical capabilities for, the Intelligence Community. Agility is key in the IC and

[1] The Intelligence Advanced Research Projects Activity, Office of the Director of National Intelligence (ODNI) 'History', http://www.iarpa.gov/history.html (accessed 24 Jun. 2013)

IARPA's approach is to always look for, and seek out, new innovative ideas and perspectives. [...]"

Another note of interest about IARPA is that the leaders who run this ODNI special project have biographies the likes of something out of a *Tom Clancy* novel, with three out of the top five leaders of IARPA formerly employed by DARPA. Also in the top five are resumes of prior employment at the NSA, CIA, ODNI and MIT.

As at the time of writing, IARPA is comprised of three main offices, structured, as mentioned above, in a similar fashion to DARPA. These offices and their descriptions, are as follows:[1]

Office of Incisive Analysis

Programs in this office focus on maximizing insights from the massive, disparate, unreliable, and dynamic data that are - or could be - available to analysts, in a timely manner. We are pursuing new sources of information from existing and novel data, and we are investigating innovative techniques that can be utilized in the processes of analysis. Our programs are in diverse technical disciplines, but have common features:

- Involve potential transition partners at all stages, beginning with the definition of success;
- Create technologies that can earn the trust of the analyst user by providing the reasoning for results;
- Address uncertainty and data provenance explicitly.

[1] The Intelligence Advanced Research Projects Activity, Office of the Director of National Intelligence (ODNI) 'Program Offices', http://www.iarpa.gov/offices.html (accessed 24 Jun. 2013)

Office of Safe & Secure Operations

Programs in this office will focus on countering new capabilities of our adversaries that would threaten our ability to operate freely and effectively in a networked world. Key research focus areas will include information security and assurance, advanced computing technologies and architectures, quantum information science and technology, and advanced counterintelligence technologies and techniques.

Office of Smart Collection

The mission of the Office of Smart Collection is to dramatically improve the value of collected data. Particular areas of interest include:

- Innovative methods or tools for indentifying and/or creating novel sources of new information
- New ways of identifying and assessing collection systems for dramatically improved performance
- Sensor technologies that dramatically improve the reach, sensitivity, size, weight, and power for collection of a broad range of signal or signature types
- Tagging, tracking, and location techniques
- Electrically small antennas and other advanced RF concepts
- Agile architectures that intelligently distill useful information at the point of collection
- Innovative means and methods to ensure the veracity of data collected from a variety of sources.

Since I am still in the early stages of research into IARPA, I will avoid getting into much more detail, but by now some

readers may be wondering where the Transhumanism connection is - and I promise you there *is* a connection. At the time of writing, I have researched all the programs under the Incisive Analysis office, and half of the programs under the Safe & Secure Operations office - and I have found *many* Transhumanism technologies in this group alone. Some technologies involved include the likes of bio-intelligence chips; nanotechnology; biometrics (face-recognition software); computer autonomous programs (classified under artificial intelligence); integrated cognitive-neuroscience computer programs for the intelligence community; artificial cognitive systems; virtual reality; and I am still finding more.

With program names like 'Metaphor', 'Icarus', 'Finder' and 'TRUST', it is almost humorous how they play on words just like DARPA does. I challenge those who may think I am stretching things a bit, to take at least a moment to not only read some of the program synopsis', but to also read the brief biographies of the program managers who have obvious interest in Transhumanism technology, as my guess is that without this interest, they would not have been given opportunities at IARPA.

With a technologically polluted world that is truly moving at the speed of insanity through the Transhumanism agenda, and rushing toward the ultimate goal of Posthumanism, it is no surprise that the United States Intelligence Community decided to form a Transhumanism version of DARPA. Social engineering has worked so well that IARPA could walk through the crowds of cyber-zombies doing whatever they wished in the name of national security with the technology of the Transhumanism construct enforced.

I have no problem with a sovereign nation protecting the legitimate interest of its citizens, but the track record of the United States is tainted with lies, deception, and treason against the American people (and others around the globe). They will capitalize on the technologies of Transhumanism without resistance, and will assist in evolving these technologies to the

likeness of what DARPA has done for the military, which will only aid in creating this 'Slave New World'.

Be sure to look into IARPA (iarpa.gov) and compare how it is structured to the DARPA website.

Lifeboat Foundation: 'Safeguarding Humanity'

You may recall during the section covering *David Pearce* that I mentioned his involvement with Lifeboat Foundation. Pearce is just one of an enormous group of advisors for this mega-Transhumanism foundation which has quotes from the likes of *Ray Kurzweil*, *Nick Bostrom*, and others, peppered all over the website. This foundation has a lot going on with a hand in everything that is part of Transhumanism.

The Lifeboat Foundation[1] raises money to assist with projects, encourage scientific advancement (H+ technology), and help humanity survive existential risks. Their full description seems paradoxical, with one side of the foundation looking to avoid the misuse of Transhumanism technology, and the other side helping to promote and fund projects, and encourage scientific advancements. Projects and technologies they are involved with include genetic engineering, nanotechnology, robotics, artificial intelligence, RNA interference (for vaccine purposes), and even space colonies.

Whilst they do not state it, it seems as if the move towards Singularity is their only viable option worth considering, so I can understand why some may be confused about their motives. One only needs to know the credentials and philosophies of some of the more recognizable names who contribute to Lifeboat Foundation to understand that this foundation is playing with Pandora's Box.

Its advisory boards are massive, and cover fields ranging from counterterrorism to religion/spirituality[2]. One cannot help but

[1] Lifeboat Foundation, http://lifeboat.com/ex/main (accessed 7 Oct. 2011)

[2] Lifeboat Foundation, 'Advisory Boards', http://lifeboat.com/ex/boards; It is also important to review the credentials of the Board of Directors, http://lifeboat.com/ex/directors (accessed 7 Oct. 2011)

wonder why there would be a need to have a board on religion, or social factors, but after reviewing all titles, it is easy to see that the boards make up a conglomerate that is the infrastructure of a new society - or dare I say it: *Earth 2.0*.

The current and future projects of Lifeboat Foundation are far too many to cover in this section, and each are quite detailed, but for those willing to take the time to review them, you will find some proposals that certainly can raise a hair or two on the back of your neck. Do not be fooled, though, in how some are explained, as they appear to have good intentions which may very well be the case - initially - but it is still fighting fire with fire. One example is Project NanoShield[1], which goes into serious scientific detail on all the risks of nanotechnology if used as a weapon and what massive detrimental effects it could have on civilization - but what it proposes to use to combat these effects, is none other than (wait for it) nanotechnology. Is this not the same as injecting yourself with a deadly virus to fight a virus? You just have to read it for yourself to digest the level of lunacy this whole thing encompasses.

Connection to Transhumanism: Clearly, the connection is apparent, and I believe that out of all the topics I have covered thus far, Lifeboat Foundation would stir up the most heated debate and criticism regarding my stance on it. I agree that it is healthy to question everything, but, for the record, I would like to state that those who wish to debate me about whether Lifeboat Foundation is a good idea or not, had better do their homework first.

[1] Lifeboat Foundation, 'NanoShield', http://lifeboat.com/ex/nano.shield (accessed 7 oct. 2011)

Mormon Transhumanism Association

It is not uncommon in a movement as massive as Transhumanism to see various sects form, taking the main concept or goal of the movement and customizing it to fit the needs or wants of a particular group that has decided to embrace its ideologies and philosophies. Transhumanism is no exception, and this is something I have seen a lot of during the years of researching this construct. Depending on the sect, or group, and how they understand the vision of the movement, we can even see it defined in different ways.

Sometimes it is simply the name that precedes the definition of the group's view on the movement, with such terms as 'The Singularity', 'Posthumanism', 'Human 2.0', 'Robotics Zeitgeist', and the 'Cybernetic Paradigm'. I have even come across much in the way of the discussion of religion and spirituality, in terms of how it will be affected or altered depending on how certain beliefs will be practiced once integrated into the posthumanist world.

Several of the organizations I have covered over the course of this book have individuals that act as a religious or spiritual advisor, while others have an entire advisory board just for the subject. Yet, in all of my research, I had not come across a religious based Transhumanism organization until I was nearing the end of the final review of this book. It was much to my surprise that one of the most notoriously strict and fundamental religions, with powerful connections in business and politics, would dive right into Transhumanism. Perhaps, due to the fact that the Mormon religion is notorious for having members in powerful roles in both business and government, this may have been found to be an opportunity worth seizing.

Whatever the reasons may be, there is no doubt that the Mormon Church has decided to launch a movement towards creating a techno-religious paradigm, becoming the religious

forerunner of the Posthumanism world[1]. They have even given this new techno-religious movement a name: *Transfigurism*. The non-profit 501c3 association that was founded on March 3, 2006, defines Transfigurism in the following way:[2]

"Transfigurism is religious Transhumanism, exemplified by syncretization of Mormonism and Transhumanism. The term "transfigurism" denotes advocacy for change in form, and alludes to sacred stories from many religious traditions, such as the Universal Form of Krishna in Hinduism, the Radiant Face of Moses in Judaism, the Wakening of Gautama Buddha in Buddhism, the Transfiguration of Jesus Christ in Christianity, and the Translation of the Three Nephites in Mormonism. Transfigurism also alludes to prophecies, such as the Rapture in Christianity and the Day of Transfiguration in Mormonism. [...]"

The definition is certainly proof that this is a *techno-religious movement* that has been embraced fully by the Mormon Church because they have their own Transhumanist Declaration and Constitution much like a lot of the other organizations do. They also have an online store filled with books on the subject of Transhumanism and have accounts on all major social media, so, obviously, this is not some small unsupported element of the Mormon Church. In fact within the Mormon community, it is simply known as 'The Association', which sounds, to me, like something out of a mafia themed movie.

In their quarterly journal, *Transfigurist Quarterly*[3], you will find well-known names like *Michio Kaku*, *Deepak Chopra*, *Ray Kurzweil*, and *Aubrey de Grey*. The association has regular meetings, publications, annual member surveys, and its own social network, called, 'Transfigurism Community'.

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[1] Mormon Transhumanist Association, http://transfigurism.org/ (accessed 1 Jul. 2013)

[2] Mormon Transhumanist Association, 'About', http://transfigurism.org/pages/about/ (accessed 1 Jul. 2013)

[3] Scribd, Inc., 'Mormon Transhumanist Association', http://www.scribd.com/transfigurism/ (accessed 1 Jul. 2013)

The entire construct, incorporating the Transhumanism/Singularity/Posthumanism network, already has a technologically-spiritual flair to it, and that can be seen when listening to, or reading the papers of those who have dedicated their lives to the effort. Even with the average mundane person, we witness them almost idolizing 'Smart' technology and praising the next generation of the iPhone as if it had been sent from Mt. Olympus by Zeus himself. It is amazing to watch documentaries like *Visions of the Future*, where people are interviewed about things like Second Life, or artificially intelligent robots. Most everybody has a huge smile across their face, and eyes that are in a euphoric glaze as if they had been touched by an Angel, so, perhaps, it should not be too surprising to now be witnessing the rise of the techno-religious church, with the Mormon's taking the lead.

Connection to Transhumanism: I had been pondering the theory that this could be a method of social engineering by way of *blind faith* to assist with the integration and further synthetic evolutionary process required by the Transhumanists, in order to ensure a *non-resistant* population who may or may not pose a risk of rebelling against being under the control of the mind of the machine. Then again, when I look around, all I see are techno-trance people standing in endless lines for the next 'Smart' technology upgrade; fighting each other for the newest game console; or spending thousands of dollars on the latest innovation in automated life-size sex dolls. So, perhaps with all of that, and an endless list of other things, this integration will not be so difficult after all, and the product of having organized religions embracing Transhumanism is simply a fringe benefit.

It is human nature to believe in something, and organized religions have capitalized on this for the purposes of control for thousands of years. Transhumanism is the process of transforming humans using certain technologies in order to excel and synthesize evolution; to create a cybernetic paradigm of Posthumanism which would have 100% control and become the basis for the next techno-religion under The Singularity.

The Seasteading Institute and Blueseed Inc.

Shifting gears for a moment, The Seasteading Institute[1] and Blueseed Inc.[2] are two entities that are working towards the same idea - for the most part - who are not overtly or even moderately Transhumanism related in nature. In fact, the ideas that they feature on their websites are great. Both of these entities will be discussed here together in general terms, including what they are looking to accomplish, and my genuine concerns on the possible infiltration of Transhumanism/Singularity technologies and ideologies that could pose a risk to an otherwise excellent concept.

Seasteading and Blueseed are working on creating ocean based floating cities that can be a safe haven for people who wish to conduct research, create businesses, and be innovators in better technology on a self-sustainable complex that would each become its own sovereign nation - much like the city-states of ancient Greece (i.e.; Sparta, Corinth and Athens). Both have gathered a team of professionals in fields such as oceanography, naval engineering, and maritime and international law, among others. The material and documentation provided by both websites sparks a level of curiosity that leaves one imagining a range of possibilities in a multitude of areas.

To be able to live in a much freer environment away from such invasive forms of government, with the wonderful view of expansive water, sounds, to me, like a magnificent lifestyle - but perhaps this is because I have spent most of my life on, or near, the ocean. I do, however, have a few concerns about this, but in the paragraphs that follow, I am in no way attempting to persuade the reader to lean to either side of the matter.

[1] The Seasteading Institute, http://www.seasteading.org/ (accessed 23 Aug. 2011)

[2] Blueseed, Inc., http://blueseed.co/ (accessed 1 Jul. 2013)

Considering all positives and negatives of where this could lead is simply the best way to be a competent judge.

First and foremost, there are three monsters right now lurking in the Pacific and Gulf of Mexico regions of our oceans that need to be addressed before floating cities should be launched into full operational status. These are the 'Great Garbage Patch'[1], the BP Deepwater Horizon Oil Spill[2] and the radiation pouring into the ocean due to methods of cooling the Fukushima Daiichi Nuclear Reactors[3] that were destroyed by the earthquake and tsunami in 2011 - with no small thanks to the gross negligence of the Japanese government and TEPCO[4]. These three major crises, in my opinion, need to be addressed and fixed first before we even *begin* to think in terms of the design of these floating ocean cities. There are other issues to consider regarding the sensitive ocean environment, but both Seasteading and Blueseed seem to be aware of them, which is good.

Connection to Transhumanism: Concerning the risk for heading down this path, I have found some interesting data on the Blueseed Inc. website involving start-up businesses who have shown an interest in joining with them. Blueseed's data charts are configured by category of industry, country, and a few various other poll results, but focusing on the industry chart, I noticed some technology based industries covering robotics, biotech/medtech, gaming (possibly including virtual or augmented reality) and even one labeled 'stealth', which I found

[1] Wikipedia The Free Encyclopedia, 'Great Pacific garbage patch', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Great_Pacific_garbage_patch (accessed 2 Jul. 2013)

[2] Wikipedia The Free Encyclopedia, '*Deepwater Horizon* oil spill', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Deepwater_Horizon_oil_spill (accessed 1 Aug. 2010)

[3] Jeff Rense website, 'Fukushima Reactor Disaster', http://rense.com/Datapages/japanquakedat.htm (accessed 9 Sep. 2011)

[4] Tokyo Electric Power Company (TEPCO), 'Current situation of Fukushima Daiichi and Daini nuclear power station', http://www.tepco.co.jp/en/nu/fukushima-np/ (accessed 15 Aug, 2012)

curiously interesting[1]. I cannot comment on the views of those in charge of Blueseed regarding Transhumanism or The Singularity, because I have not yet read anything that would clarify or verify their stance.

One major concern I have with The Seasteading Institute relates to Google, the mega-conglomerate of the monopolized internet industry. Google's co-founder and CEO, *Larry Page*, has embarked upon a project to create Free-Experimentation Zones[2] on both land and sea. Google is definitely a corporation in favor of, and developing in, many areas involving Transhumanism technology. Mr. Page's ideas are even praised on The Seasteading website.

If The Seasteading Institute or Blueseed Inc. were to become a Free-Experimentation Zone, as well as each being their own sovereign nation, it would create both great and not-so-great possibilities. Things like free/limitless energy technology, true innovation in organic gardening, or even the development of a non-synthetic biofuel could be researched without the tyrannical oversight of corrupt government agencies like the EPA or USDA.

Multinational corporations with powerful lobbyists who grease the palms of corrupt congressmen could not suppress such beneficial innovations for all life on Earth. Yet, I cannot help but be slightly concerned that mega corporations like Google, Monsanto, or a number of biotechnology institutes could play a heavy hand in manipulating these creative ideas through the use of practically unlimited funding. I do support the ideas of these two entities looking towards an alternative lifestyle, but if they become compromised, they easily could become something like

[1] Blueseed, Inc., 'Come Aboard! – Bluseed startups per industry', http://blueseed.co/come-aboard/results/ (accessed 1 Jul. 2013)

[2] Chdeist, 'Sign our Petition in Support of Larry Pages Free-Experimentation Zones on Land & Sea!', The Seasteading Institute, 19 May 2013, http://www.seasteading.org/2013/05/sign-our-petition-in-support-of-larry-pages-free-experimentation-zones-at-land-sea/ (accessed 25 May 2013)

the Venus Project or a floating Agenda 21 'Smart Growth' city; or even worse, some sort of mad scientist laboratory-city infested with human cloning, GMO experimentation, and bio-cybernetic (cyborg) engineering.

As theatrical as it all might sound, the reader should be made aware of all possibilities. Together we should hope that The Seasteading Institute and Blueseed Inc. are considering the concerns discussed in this section because if they are, and are determined to stand strong and not yield to the power and corruption of government agencies or large corporations as mentioned, then this could be something significant and worth looking forward to in the future.

The Venus Project

When the Zeitgeist film series[1] sprang forth out of nowhere in 2008 with *Zeitgeist: Addendum*[2], it made a big impact in the Truth Movement - and The Venus Project[3], which was featured prominently, opened many new opportunities for discussion, creating a wild buzz about sustainability in communities. When its founder, *Jacque Fresco*[4], described his vision for these communities/cities, it immediately raised the alarm for me. I know he and his project do have a huge amount of support from individuals, organizations, and companies, but I am still going against the grain on this one, and my reason for this will follow.

Mr. Fresco is an industrial designer and social engineer, and is considered a forerunner in the field of 'human factors'. He has also worked as a designer and inventor in a range of other fields, from biomedical, to totally integrated social systems. It is important to note before reading any further that some of what I have just mentioned are utilized in 'Smart Growth/City' design.

Most of the companies and institutes that are in support of The Venus Project are also involved in various Transhumanism technologies like artificial intelligence, autonomous robotic systems, and biotechnology as well as The Singularity. You can find a list of the supporters on the project's website, which has a massive amount of information in the form of reading material and videos.

I feel The Venus Project is masked with a sort of 'hope and change'/new paradigm kind of essence - as is displayed when

[1] The Zeitgeist Film Series, http://www.zeitgeistmovie.com/ (accessed 15 Feb. 2012)

[2] *Zeitgeist: Addendum*, dir. by Peter Joseph (2008; Gentle Machine Productions, 2009 Online)

[3] The Venus Project, http://www.thevenusproject.com/ (accessed 3 Aug. 2012)

[4] The Venus Project, 'About – Jacque Fresco', http://www.thevenusproject.com/about/resume (accessed 3 Aug. 2012)

browsing the website. They have a video on the site, called, *Paradise or Oblivion*[1], and this title alone insinuates that we have only two choices: become extinct in a world of pollution and greed, or flock to this supposed 'Avalon' of an oasis, brought to you by Jacque Fresco himself. I encourage everyone to browse the website and watch the video, to see whether it resonates with your ideas of what choices we have during these troubling times.

The Venus Project leaves nothing out of the equation as it plans for fully self-sustainable and independent city-state types of communities that are even self-governed; and this, not by any human, but, rather, by a *cybernated government*. Their website describes this self sustainable 'cybernation' in two paragraphs:[2]

"The Venus Project calls for a cybernated society in which computers could replace the outmoded system of electing politicians that in most cases represent the entrenched vested interests. This new technology will not dictate or monitor individuals' lives, since in The Venus Project this would be considered socially offensive and counterproductive. Books such as 1984 and Brave New World, and motion pictures such as Blade-Runner and Terminator 2 have spawned fear in some people regarding the takeover of technology in our society. The Venus Project's only purpose is to elevate the spiritual and intellectual potential of all people, while at the same time providing the goods and services that will meet their individual and material needs.

"Cybernation is the linking of computers with automated systems. Eventually the central cybernated systems will coordinate all of the machinery and equipment that serve the entire city, the nation and ultimately the world. One can think of

[1] Youtube.com, '*Paradise or Oblivion*', The Venus Project Media, uploaded 30 Mar. 2012, http://www.youtube.com/watch?v=KphWsnhZ4Ag (accessed 4 Aug. 2012)

[2] The Venus Project, 'Technology – City Systems', http://www.thevenusproject.com/technology/city-systems (accessed 3 Aug. 2012)

this as an electronic autonomic nervous system extending into all areas of the social complex. [...]"

Such an insanely oxymoronic 'cybernated society' in which computers replace 'outmoded' systems of electing politicians, makes little to no sense whatsoever. While I agree that the current forms of government are broken, corrupt, and need serious overhauling, what they are suggesting is madness. The Venus Project, in the excerpt above, state that this new technology will *not* dictate or monitor individuals' lives as it would be considered offensive, and then proceed to recognize the fear spawned by technological takeover, as depicted in the movies and books they list in their examples. And if that wasn't audacious enough - and this is where it gets contradictory - they then explain to the reader how a 'cybernation' (which, in not so many words, creates a *centralized autonomous computer system*) will control the city as a 'service'.

So, The Venus Project plan to have a *cybernated government*, and a *cybernated society*, controlled by a centralized *automated* computer network, which controls and services all needs in society, yet, somehow, it will in *no* way be offensive, intrusive, or counterproductive to the individual's way of life. Clearly, and just based on what you have read in this book to this point already about systems and technologies that will lead us toward The Singularity before most of the populace are aware it even has a name, The Venus Project wishes to incorporate a Transhumanism agenda into their total city system: a system that one should think of as an '*electronic autonomic nervous system'* which extends into '*all areas of the social complex'*.

We know thus far from researching various technologies, and, for those who have looked as deeply as I have, reading case studies in intimate detail, that these types of technological scenarios have shown to have detrimental side effects when used in specific ways, examples of which are scattered throughout the pages of this book. Technology can be a good thing, but once it becomes an autonomous AI cybernetic super-network that not only controls the infrastructure of an entire city

but is the 'cybernated government' of the people, then I see a *tremendous* number of problems that can surface.

Connection to Transhumanism: To finally hammer the nail into this section and justify the reasons for including The Venus Project in this chapter, one needs to simply view their website, scroll over the 'Technology' tab at the top of the homepage and click on 'Latest Technology'. Once the page loads, you will be face to face with a menu of Transhumanism categories, and even a thumbnail image of Ray Kurzweil. Technologies such as nanotechnology, artificial intelligence, biotechnology, intelligent cities, and a category called, 'The Singularity', plus many more will be featured.

It is safe to conclude that The Venus Project, without directly declaring it, is not only supportive of Transhumanism, but is actively looking to utilize H+ related technology for the implementation and future continuation of their projects.

The Wizard of OZ Technique

I first learned about this technique towards the end of 2012 and was quite fascinated with its purpose and impact on technology; specifically, how it could assist in the evolution of artificial intelligence and human-computer interfacing. The technique is quite clever and uses a touch of deception for the human test subject. It originated circa 1980, by *John F. Kelly*, at John Hopkins University[1].

In basic terms, the experiment involved a human subject, a computer, and the operator, or 'wizard', who controlled the computer - unbeknownst to the test subject. The following is a great description describing the technique and how it is accomplished, taken from the Federal Aviation Administration's website:[2]

"This variant of computer-based prototyping involves a user interacting with a computer system which is actually operated by a hidden developer - referred to as the 'wizard'. The wizard processes input from a user and simulates system output. During this process the user is led to believe that they are interacting directly with the system. This form of prototyping is beneficial early on in the design cycle and provides a means of studying a user's expectations and requirements. The approach is particularly suited to exploring design possibilities in systems which are demanding to implement such as those that feature intelligent interfaces incorporating agents, advisors and/or natural language processing. [...]"

[1] Wikipedia The Free Encyclopedia, 'Wizard of OZ experiment', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Wizard_of_Oz_experiment (accessed 5 Nov. 2012)

[2] Federal Aviation Administration, 'Human factors – HF Tools – Human Computer Interaction Tools – Prototyping – Wizard of OZ Technique', http://www.hf.faa.gov/workbenchtools/default.aspx?rPage=Tooldetails&subCatId=12&toolID=286 (accessed 15 May 2013)

The experiment, depending on how it is conducted, can result in further advances to do with how humans interact with computers, and more specifically, artificial intelligence. This allows for better development of human-robot interaction, brain-computer interfacing, and even social engineering. The social engineering aspect is important to those involved in the above technologies, because, with this technique, they can observe the nature of human-computer interaction in order to improve upon it, which then can also benefit the advancement of augmented reality.

The Wizard of OZ Technique really is nothing more than a *simulation* of artificial intelligence that has a multitude of uses in order to work out the kinks of such technology. I sometimes wonder if this exact experiment was somehow utilized during research and development regarding virtual reality, online gaming, and AGI (artificial general intelligence) 3-D holographic technology, of which is becoming more and more popular. Although I cannot say for certain, it would make sense to me that this would already have been considered a valuable tool by developers.

Connection to Transhumanism: Although I could have chosen to feature any number of other experimental techniques from the dozens that have been developed to assist in these fields of Transhumanism technology, I felt this was the best one to include here, if, for no other reason than the name it was given - which I find to be what I would refer to as 'techno-esoteric'. A number of great researchers have looked into the meaning of the *Wizard of OZ* movie, and the symbolism, some say, was purposeful in being included.

The idea behind the Wizard of OZ in the movie in itself was a sort of virtual reality/social engineering hybrid that was a ruse controlled by one man behind a green curtain. This can be easily compared to the ancient Egyptian priests who climbed into hollow statutes to act as Oracles for the commoners (see, **Artificial Intelligence**); or even the priestess known as *Pythia* at Delphi, in ancient Greece (see, **Virtual Reality**), who,

unknowingly, was exposed to deep underground volcanic gasses that sent her into a fit of convulsions and hallucinations, appearing to commoners as an Oracle: their direct connection to the Gods.

As it is with much of the Transhumanism technology, there exists today - as there did in the past - a sort of pseudo-Oracle-like obsession that has caused many to be driven into essentially falling to their knees in praise of *machines*. The difference between now and then is that we are not too far away from the 'wizard' behind the curtain being uncovered, but instead of a man, it will be a cybernetic neuro-network controlled by a centralized superintelligent AI computer who acts as *the* undisputed Oracle for the posthumanist world - and this will be, in no small part, due the result of such experimentation as The Wizard of OZ Technique.

THE TRANSHUMAN FAMILY TREE

From the Beta Human to the Noosphere: via and beyond Posthumanism and The Singularity

PREFACE

When you research The Construct long enough, you will eventually find yourself in a far distant area of this complex agenda that consists of theoretical and metaphysical ideas that incorporate the continuously developing technologies involved. This will land you in a science fictional dreamscape fairly quickly, but you will be wide awake and thoroughly alert throughout. The line between reality and the seemingly impossible quickly creates a gray area of logical thought that must be looked at beyond its foggy boundary of normal disregard.

By this point in the book, you will have already digested some pretty incredible things that may not be anywhere in the thoughts of the general public as it could literally put them into a mental anaphylactic shock. 'Real life' these days includes actual technologies that are not just for the movie industry anymore: from the existence of nano-particle holographic bodies, to autonomous robots that are capable of eating biological material on their own for self-preservation, and a gigantic array of possibilities in between, and even external to these examples.

Prior to writing this chapter, I already knew that many individuals who are deeply involved with overt dedication to Transhumanism had some very far-out ideas for developing the next stage of humanity. These ideas included utilizing technologies for the purposes of a quicker, synthesized evolution leading to the Human 2.0 model, and I had considered this to be - for the most part - their final destination. However, as alluded to above, once you fall down into the catacombs holding the sacred libraries of The Construct, you learn of things that reach much further than anything contained within these chapters so far.

While I was doing some digging into the Posthumanism (Human 2.0) designs and ideas being discussed and developed, the two most prominent ideas and directions The Construct is moving towards became apparent, as described by *Dmitry Itskov's 2045 Initiative* and *Dr. Natasha Vita-More's PRIMO Posthuman*, both of which have been expanded upon in previous chapters. Then, through a chain of events, I stumbled upon a realm of Transhumanism I had not yet before seen.

I entered an area where thinkers, scientists, and engineers have, in their own ways, taken elements of art, philosophy, science, technology, and the New Age movement, and created a timeline that had, quite simply, taken all I previously had discovered, and pushed it, with me, across the Rubicon. The twisting and winding path down this road was enchanting, and if I was not so independent in thought, I very well could have become lost in this mangrove of temptation: the same one that I am sure is working its way into the hearts and minds of the lost souls who yearn to become assimilated into the techno-world that Transhumanism is promising. But as I hold strong to my opinions, I always make sure that I stay connected with the organic biosphere we are still cohabitating upon, in order to ground me.

I found what I believe is a dreamscape timeline for The Construct, and it was not hidden away behind locked doors in a secret vault. It was not something that required me hacking into a mainframe with complicated algorithms, nor was it something that I acquired by way of an insider. It was, however, tucked away in a little corner that clearly could be considered to be 'hidden in plain sight' on a website - one, that for the most part, is only viewed by the blind-following eyes of the Transhumanism lemmings that wait for their techno-Gods to rise and take control of our Earth in accordance with their 'New Techno-World Order'.

The website I refer to is that of Dr. Natasha Vita-More, and the item I found was a simple little diagram of something akin to a Family Tree, but this chart is more important than any

genealogy ever tracked in the past. This diagram, labeled, *Human Tree of Future Human Self* is what I call the 'Transhuman Family Tree' - and if you think that it is as simple as depicting a branching progression reaching ultimately towards Posthumanism and The Singularity, you would be very mistaken.

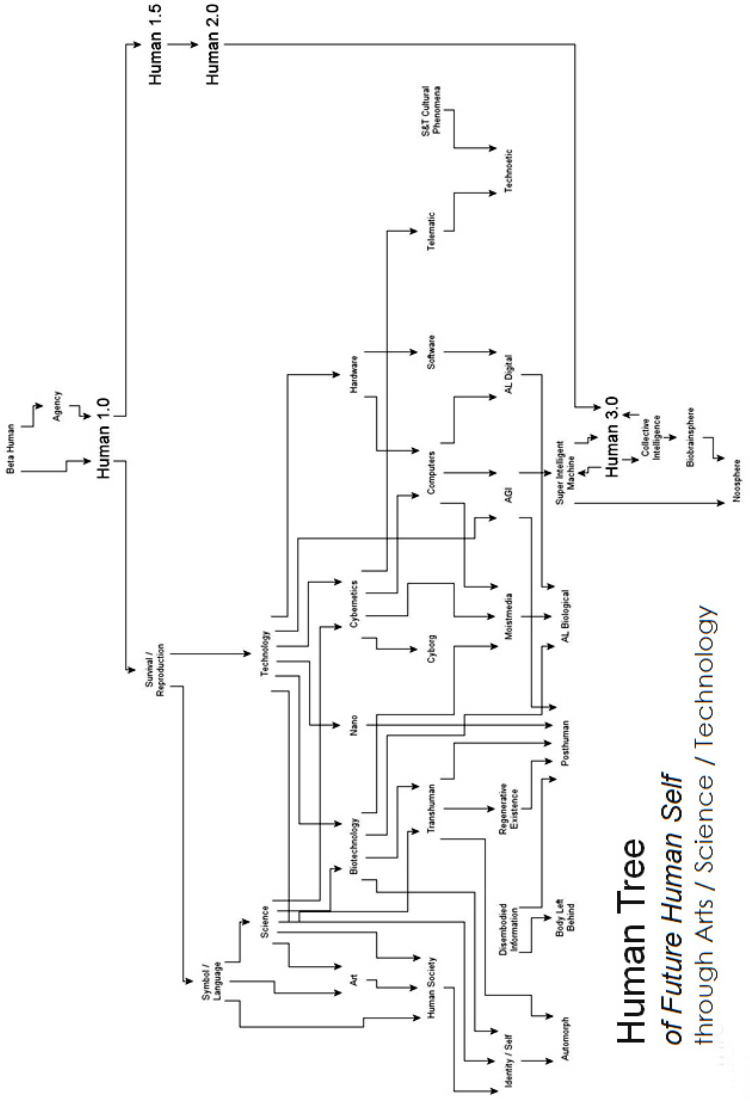
The Transhuman Family Tree is quite complicated, and filled with philosophy, mystical mantra, life imitating art, metaphysics, and a melding of the New Age movement with that of Transhumanism. Since its discovery I have devoted much of my time to following its many paths which center around *Human 1.0*, and branch back and forth following a journey with ultimately one destination - the *Noosphere*.

Even though there are branches on this Tree that are still are far from becoming reality, and other branches that seem more mythological than real, it is important to be aware that real people with influence and resources in the world of Transhumanism are tied directly and indirectly to this Tree. Perhaps we could qualify it as the artistic imagination from the mind of the Queen of Transhumanism herself, or, *just maybe* this is an actual timeline with the potential of becoming *very real* in the next 30 to 50 years - if not sooner.

This will be a complicated chapter at times as we move along every branch of this journey. Some details will need to be discussed more extensively than others, but we will reach the final destination with a clear understanding of how we arrived. I went to great lengths to find the best references for some of the more far-out elements of this Tree and I hope they will serve you well if you decide to verify everything shown here, whether or not you believe the legitimacy of it.

Please take a moment to study the Transhuman Family Tree over the page before continuing on.

Human Tree of Future Human Self



Source: http://www.natasha.cc/transhumantree.htm

From Timeline to Tree

In 2005, at the Trans Vision 2005 conference held at Caracas, Venezuela[1], *Dr. Natasha Vita-More* shared a presentation, entitled, *Transhumanism 2.0*[2], in which she revealed the following timeline:

2005 - Population of Transhumans

2015 - Transhumanists increase

2025 - Humans decrease and Posthumans increase

2035 - More Transhumans than Humans

2045 - More Posthumans than Transhumans

2045 is *the* single most agreed upon year within The Construct in which a major shift for humanity has been predicted. No other date shows up more than the year 2045. It is the sought after year, and the goal calculated by the most brilliant minds in this phase of the Transhumanism rise. If this timeline becomes even somewhat close to actuality, as Dr. Vita-More suggests it will, the organic humans who are against this plot will be in for some rough waters soon.

The 2005 date was the year the transition began to take off faster - when the age of the rise of Transhumanism began to show itself. We also saw the first Smart Meter introduced in The Netherlands. That same year the iPhone was being developed, and the first generation was released two years later. We also saw the roll out of automated cars, nano-circuitry,

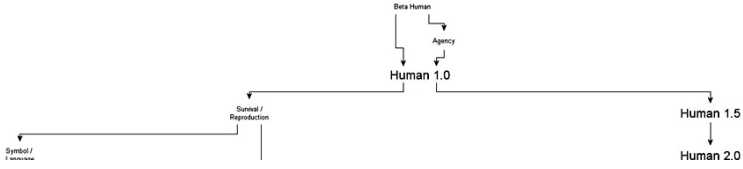
[1] Venezuelan Transhumanist Association, 'TransVision 2005', http://www.transhumanismo.org/tv05/en/default.htm (accessed 8 Jul. 2013)

[2] Natasha.cc, 'Transhumanism 2.0', http://www.natasha.cc/Transhumanism2.ppt (accessed 3 Aug. 2013)

robot assistance, and even 'non-lethal' crowd control weaponry. So far, one of the dates was accurate, and as the trends are showing, it seems plausible to assume that the next ones will also be on cue.

Taking this timeline into account, we can move on to the Transhuman Family Tree, which certainly deserves a great deal of attention and quite a thorough dissecting.

The Beta Human and Beyond



The Tree starts off relatively simple with the **Beta Human** which can be considered the less developed *Homo sapiens*, and then splits into two branches. Both branches lead to **Human 1.0**, which is the organic non-transhuman human, however one makes a quick development stop, labeled, **Agency** on the chart. It must be noted here that since there are no explanations of any kind by its creator/s, reasonable theories and facts based on evidence must be applied, but some links in the chain will be based on speculation, of which will be noted as such.

That being said, the **Agency**, I presume, refers to a term used for the earliest foundations of those engineering the ideas of Transhumanism, which, in my opinion, makes the most sense since it has its own branch before reaching **Human 1.0**. On the other hand, the **Agency** could perhaps be a metaphysical reference dealing with the ancient mystery schools of sacred knowledge, alchemy, and the ancient roots of Transhumanism. Either way, I believe it is the branch depicting a sect of humans that wish to be supreme over the commoners.

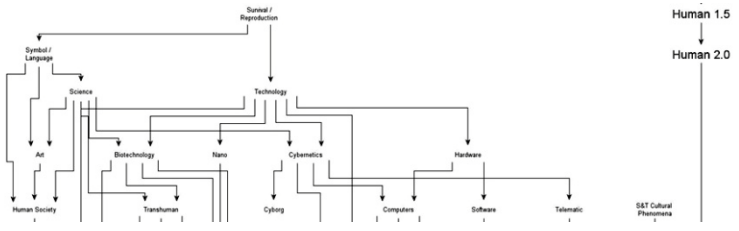
Human 1.0 branches off into two opposing lines of progression as seen on the chart, with one leading directly to **Human 1.5** and the other leading to **Survival/Reproduction**. Both are paths of Transhumanism, but seem to differ in one way - which I theorize as being due to the access of technology by the more elite insiders of The Construct. The path leading from **Human 1.0** to **Human 1.5** contains no further information along the way to detail how or why this seeming 'upgrade' happens. My feeling, though, is that this could be the more metaphysical

route (an offshoot from the **Agency** branch) that is indeed incorporated with Transhumanism technology, but this data point was simply left out of the Tree since it may be considered accessible knowledge for those in the know.

With this being so, if it is, then perhaps Human 1.5 is a phase not discussed openly on how the already morphing transhumans will progress into a techno-biological state of being that at the 1.5 phase is still more biological than technology based. My other reason for this theory will be explained later on. The branch line leading to **Survival/Reproduction** is, I believe, the path designed more for the followers we see now - the 'commoners' one might say, as opposed to the leaders of The Construct - and this displays how the techno-creators will assimilate them into the synthesized evolutionary process. It really seems to be the obvious explanation because after **Survival/Reproduction,** we see a split that is almost a table of contents for this book.

I must emphasize that I found this Tree to be quite intriguing and did not decide to include it in the book until after reading the first draft.

The Symbol of Language



Concentrating at the moment on the unfolding progression of the **Survival/Reproduction** branch, the last easy to follow split occurs next, where the **Symbol/Language** and **Technology** branches take form. Following the **Symbol/Language** branch in its progression on the chart, we can deduce that symbols and language are basic and essential parts of our lives, and without either, the world as we see it today in regards to the arts, relationships, social activity, craftsmanship, and love, would be something considered alien to our civilization.

After hundreds of thousands of years of developing and evolving, symbols and language have served humanity for the greater good, as well as nefarious purposes, yet they have been a required necessity for becoming who we are today. For Transhumanism, these two elements are essential for being synthesized into a more technology focused collective plain. Individuality and organic creativity can exist and should be encouraged - but for those in The Construct, it is only permissible if done so in accordance with their declaration.

The **Symbol/Language** branch, through its sub-branches, eventually splits off into a multitude of options, and even shared branches, showing that, obviously, each can intertwine to incorporate more than one road to development as we see with science and technology today. The **Symbol/Language** branch has three immediate options, being **Human Society**, **Art,** and **Science**.

The **Science** branch contains paths of intertwining technologies, leading downward eventually to **Biotechnology**, **Nanotechnology**, **Cybernetics**, **Hardware**, **Transhuman**, **Cyborg**, **Computers**, **Software**, and so on, as each topic splits further. This branch of **Science** shares many of the same branches as **Technology**, just as we have covered in this book with the overlapping of various technologies from different sectors, agencies, and departments. One could follow the Tree along with the book for a guided visual chart of subjects.

The **Art** branch is a little unusual at first sight, but I did ponder on the theory that since Dr. Vita-More is a Transhumanism artist who has had her work displayed in numerous galleries, as well as being the founder of Transhumanist Art & Culture[1], perhaps this was just her little addition as some sort of wishful thinking to suggest that art would still exist in a world of collective cybernetic consciousness. That may still be true, but then I remembered a number of articles and publications I read on the continuing research and development of robots that have the ability to draw and paint for the purposes of art.

Using artificial intelligence to design robot artists is nothing new as a concept, and it has been looked at for decades. So, perhaps in some way, this branch is displaying the development of some kind of human-robot artistic interaction, or even an artistic method of creating techno-art by way of brain-computer interfacing with some sort of downloadable art software. According to the Transhuman Family Tree, **Art** does not branch off, but only progresses to one option: **Human Society**.

Society is civilization, and civilization is a social network which is influenced in many ways - one being art. Social engineering science has proven time and time again that with the right cocktail of manipulation of the masses you can direct them in any way you want like a magnet does to metal shavings. Could this be a foretelling clue as to how the new age of cybernetic

[1] Transhumanist Art & Culture, http://www.transhumanist.biz/ (accessed 8 Jul. 2013)

autonomous art created by robots will set the bar for what 'they' want you to accept as beautiful? So, will art, according to this chart be kept organic and sacred or is it being depicted as more of a creative idea with cybernetic options for growth? I am still asking myself that question.

From **Art** we move to **Human Society**, and then the Tree directs just one branch on toward **Identity/Self**, and, like the explanation of social engineering, this would simply be the next step in the progression for the transhuman commoner. One's identity and self has to be altered greatly - just as we see it happening now - but on a more cyber-matrix playing field. They must take away the more human-to-human tangible interaction of touching, laughing, and all that makes being with your friends and family a wonderful organic experience, and replace it with wide-spread augmented and virtual reality where telepresence is the norm, and intimacy is conducted through virtual platforms like the aforementioned, Second Life. The organic human's identity and self will be replaced by the software of virtual identity that we already see now with online gaming, online social networks, and robot companions.

Going back up to the **Survival/Reproduction** branch, one might be asking how this pertains to Transhumanism. The will to survive is a natural instinct for all living beings, as discussed previously, regardless of size or stature, from phytoplankton to human beings. This will is embedded into our DNA and can only be extracted into non-existence through unethical methods like mind control, chemical lobotomies, or even brain-computer interfacing. Any creature, when faced with conflict or a life-threatening situation enters the 'fight or flight' mode, and must make a choice in order to survive. Transhumanists want a techno-utopia where there is no stress, no danger, no suffering, and no 'threat'. They want perfection of a synthesized mind, body, and spirit, but they do not want religion. In order for the oligarchs of The Construct to ensure this happens they must replace the basic need for survival with something more based on cyber-collective consciousness. Hence, this is why, as I will

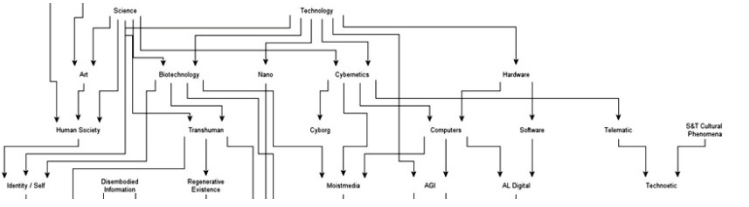
explain shortly, that some in the Transhumanist movement have taken a stronghold in the New Age movement as well.

In regards to the 'reproduction' half of the branch: considering eugenics, the Human Genome Project, synthetic biology, vaccines, etc., it is obvious that The Construct simply cannot assimilate seven billion humans. They must reduce that number greatly, and to do that, they must control the reproduction and population of the entire race.

Stepping down to the **Technology** branch and moving along the path that co-mingles with **Science**, it is expected that there would be some kind of overlap since science and technology have always worked hand-in-hand, and will continue to do so regardless of the situation. For this reason, it is possible to skip ahead of the branches shared by **Science** and **Technology** because these are explained throughout the book.

Before covering the next branch line on the Tree, I'd like to discuss two others, one of which is the first of two anomalies on the Tree that seem to manifest from nothing.

Cybernetic Convergence



Telematic, which is defined as a branch of science concerned with the use of technological devices to transmit information over long distances[1], appears, as per the chart, as a branch moving downward from **Cybernetics**, which is itself a shared branch of both **Science** and **Technology**. Telematics can be seen in many technologies including satellite communications, RF frequencies, sonar, AM/FM radio, and cell phones.[2] What makes this branch interesting is where it leads to, which is the same destination that **S&T Cultural Phenomena** appears to also land at on the Tree. Breaking down the name, 'S&T Cultural Phenomena', will allow us to understand how and why this would be tied to the science of telematics.

S&T stands for science and technology, which is self-explanatory. *Cultural*, which refers to culture, is a conglomerate of religious or spiritual beliefs, traditions, language, tastes in food, social interaction etiquette, arts, music, and more, that makes a certain group - or ethnicity - unique in ways that have evolved through their own history as a society. A *phenomena* is an incredible or exceptional occurrence, fact, or circumstance that has been observed or experienced.

With that in mind, and considering its position on the chart, it is

[1] Dictionary.com, LLC., 'telematic', http://dictionary.reference.com/browse/telematic (accessed 8 Jul. 2013)

[2] Wikipedia The Free Encyclopedia, 'Telematics', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Telematics (accessed 8 Jul. 2013)

possible, in theory, to deduce that this, in fact, is not a branch at all, but a manifested anomaly un-connected to any other part of the Tree. Again, this is just a theory, but it appears that through the convergence of the science and technology of telematics, and the anomaly explained above, it produces an offspring labeled, **Technoetic**[1].

My theory on this predicted convergence is to explain an element of Transhumanism that will manifest not necessarily by purposeful design, but will be the unexpected result in experimentation with human consciousness and computers. Along the line somewhere, someone will be in the middle of intense research and development and I believe that they will accidentally stumble upon a brand new technology of cybernetic telepathy that can and will be introduced to the world, integrating, perhaps, with superintelligent quantum computers, thus replacing the internet with a new state of consciousness powered by cybernetic computer networks. Personal computers will no longer be needed as one's mind will *become* the internet linked cyber-telepathically to all other transhumans, and eventually, posthumans.

It was this unusual **Technoetic** branch on the Tree that introduced me to the work of *Professor Roy Ascott*[2]. Professor Ascott is a British artist and theorist who works with cybernetics and telematics. His work is most interesting because it focuses on the impact of digital and telecommunication networks on consciousness. It was Professor Ascott who coined the term, 'technoetics', which is a neologism. The word comes from two other words he is given credit for coining: 'techne', from the Greek language meaning 'craftsmanship' or 'art', and, 'noetic theory' referring to consciousness, spirituality, and cosmology, and how it affects the physical world. In 1990, Professor Ascott had an article published in the Art Journal

[1] Wikipedia The Free Encyclopedia, 'Technoetic', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Technoetic (accessed 8 Jul. 2013)

[2] Wikipedia The Free Encyclopedia, 'Roy Ascott', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Roy_Ascott (accessed 8 Aug. 2013)

titled, *Is There Love in the Telematic Embrace?* and following is two excerpts from that article:[1]

"The past decade has seen the two powerful technologies of computing and telecommunications converge into one field of operations that has drawn into its embrace other electronic media, including video, sound synthesis, remote-sensing, and a variety of cybernetic systems. These phenomena are exerting enormous influence upon society and on individual behaviour; they seem increasingly to be calling into question the very nature of what it is to be human, to be creative, to think and to perceive, and indeed our relationship to each other and to the planet as a whole. The 'telematic culture' that accompanies the new developments consists of a set of behaviours, ideas, media, values, and objectives that are significantly unlike those that have shaped society since the Enlightenment. New cultural and scientific metaphors and paradigms are being generated, new models and representations of reality are being invented, new expressive means are being manufactured. [...]"

"The very technology of computer telecommunications extends the gaze, transcends the body, amplifies the mind into unpredictable configurations of thought and creativity. [...]"

What we are looking at is a process where the consciousness of computers (artificial intelligence) reaches an equal or greater level of a human's, and each converge with one another. It is a theory comprising of science and technology being integrated into a more metaphysical outlook on how human consciousness operates, and is done so through the ideologies of Transhumanist artisans. Professor Ascott has a background in the arts and technology[2], and although I have found no reference to his stance on Transhumanism, it is his work and

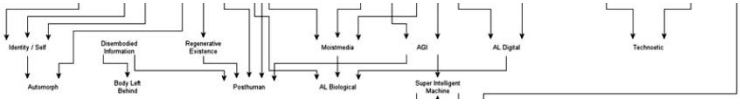
[1] Roy Ascott, 'Is There Love in the Telematic Embrace?', *Art Journal.* (1990) New York: College Arts Association of America. 49:3. pp. 241-7; Online source, http://telematic.walkerart.org/overview/overview_ascott.html (accessed 8 Aug. 2013)

[2] Plymouth University, 'Roy Ascott', http://www.plymouth.ac.uk/staff/rascott# (accessed 8 Aug. 2013)

theories that without a doubt qualify him as a Transhumanist thinker in the hierarchy. This, I believe, is why Dr. Vita-More, an artist with a background in computer science, has included this in the Transhuman Family Tree.

We can easily see how this branch of Transhumanist progression would fit in so well with developments happening for the goal of the posthuman world. DARPA, and many other entities, are currently working on cyber-telepathy for a multitude of reasons; so, with that much interest, it will not be long - unless it has already happened - that we will see the next piece of the puzzle come into fruition through a chain of unexpected events known as technoetics.

The Dreamscape of TPS Reality



Things will begin to get complicated from this point, and will need to be explained by using direct references and an element of my own theory. The lower half of the Tree is like a ride down the rabbit hole, ending up in a dreamscape of metaphysics and science fiction. The tier discussed now will be those branches on the same level as, and to the right of, **Identity/Self**.

Disembodied Information: This is the other anomaly of the Tree that seems to manifest out of nowhere, but continues on to an essential final destination of Posthumanism. Usually, in the world of the paranormal, when we refer to a disembodied spirit we think of a ghost or apparition that becomes visible, and even audible, to whomever is witness to the event. It is a ghostly manifestation of an energy still being researched and studied, and there are many theories being debated about why and how this happens, with so much still to discover and understand about the science and metaphysics behind such a phenomenon.

So, what exactly is disembodied information? From what I have been able to find, it refers to parapsychology, and specifically psychic communication, as well as channeling. It is a much discussed metaphysical based topic throughout the New Age or 'Enlightened' movements. 'Disembodied Information' is just another term for the information that is communicated psychically, as well as by the method of channeling other-worldly entities. On the more tangible side of technology, we find this term in some aspects utilized when discussing the creation and capture of metadata and other forms of information

on a more computerized level[1].

It appears that what we see here is a convergence of the New Age/Metaphysical movement sweeping throughout society, with that of Transhumanism. Perhaps this sounds crazy, but, in my opinion, Transhumanists like Professor Ascott, Dr. Vita-More, and even *Ray Kurzweil* have used their influence to infiltrate the 'New Agers' and put a metaphysical twist on the Transhumanist Declaration in order to increase support of the agenda.

Regenerative Existence:[2] This one is simpler to explain than the previous branch because we are seeing this as a current and tangible technology happening in research facilities and funding programs by DARPA. The term 'regenerative existence' falls into several categories, with one being cloning.

Cloning is nothing more than regenerating the cells and DNA of a person in order to produce an exact carbon copy. In the near future, cloning will move a person's soul (consciousness), implanted from a quantum computer, into its new body. Or it could be a little simpler in the area of synthetic biology, RNA interference, and even nanotechnology, where the body is augmented in such a way that it contains a regenerative nano-biological manufacturing plant. Certain cells would be regenerated by synthetic cells like *Synthia* of the J. Craig Venter Institute, or perhaps a cybernetic skin like what is in development and being funded by DARPA, which can repair its own cuts and abrasions with nanobot 'doctors'. Perhaps even 3-D printed and laboratory grown organs would be classified as

[1] Emerald Group Publishing Limited; Ruth Frendo, (2007) 'Disembodied information: Metadata, file plans, and the intellectual organization of records', Records Management Journal, Vol. 17 Iss: 3, pp.157 – 168, http://www.emeraldinsight.com/journals.htm?articleid=1636214 (accessed 8 Aug. 2013)

[2] Taylor & Francis Online; Natasha Vita-More, 'Designing Human 2.0 (Transhuman) – Regenerative Existence', *Artifact*, Vol. 2, Iss. 3-4, pp. 145-152, 2008; http://www.tandfonline.com/doi/abs/10.1080/17493460802028542#tabModule (accessed 9 Aug. 2013)

used for regenerative existence. This falls under the main category of life extension technology that also involves Cryonics. The quest for immortality is an ongoing goal of Transhumanism.

Moistmedia: Considering the term used for this topic, I was not even sure where to begin with this one and I had to dig deep to find what seemed to be the most logically related information to explain it. What I found was another connection to Professor Roy Ascott, who seems to just keep popping up on the Tree. I have a feeling that he either helped design it, or Dr. Vita-More utilized his work for inspiration. Since there is no description by Dr. Vita-More about how the Transhuman Family Tree came to be - no list of references, no comments, bullet points, or otherwise anything resembling an explanation - there's really no other choice left but to theorize on its creation.

While I was searching for answers on what exactly moistmedia was and how it would be pertinent to this Tree, I could only find two resources. One of those was where I found the connection with Professor Ascott and it was on the website for the Centre de Cultura Contemporània de Barcelona (CCCB), where he had been a guest speaker. The topic description, as per the website, was the following: [1]

"We are witnessing the convergence of the information technology (dry) of silicon with biological systems (moist) as the substratum of a new art. Morphogenetic fields of thought, flux and transformation, energy and light are the manifestations that inform a new sensibility for creating realities and exploring the world. Roy Ascott, a pioneer in telematic art, presents his vision of this new moist culture and the possibilities of a syncretic art that combines knowledge of nanotechnology, quantum computation, ethno-biology and pharmacology. Ascott

[1] Centre de Cultura Contemporània de Barcelona (CCCB), 'Moist Media – Roy Ascott', 22 Apr. 2006, http://www.cccb.org/en/curs_o_conferencia-moist_media-21528 (accessed 9 Aug. 2013)

also presents his project The Planetary Collegium, and foretells the victory of telenoia over paranoia. [...]"

According to this brief description of his presentation, and if I understand it correctly, moistmedia is, in all actuality, the convergence of information based technology with biological systems. When looking at it from a Transhumanism point of view this could be used to describe a cyborg, or bio-cybernetic technology, and even brain-computer interfacing. So, once again, with the work of Professor Ascott being utilized by Dr. Vita-More in yet another 'life imitating art' scenario, we see this new angle of how Transhumanism is being looked at for the final destination. They really have left nothing out of the equation.

The other resource I found comes from the website of the National Centre for Contemporary Arts, Kaliningrad Branch, Russia. I found a webpage that briefly discussed a moistmedia project in their biology section, and here is what it had to say: [1]

"Living Viral Tattoos is a series of 'in vitro' sculptural prototypes that feature the creation of visible bruises on human and animal skin. The rendering of the tattoos was made with biological viruses and immunohistochemical staining processes. The project is a modular component of Moist Media Archives, a three year project that explores viral contagion as a form of memory and documentation in digital and biological bodies. [...]"

What we have here is what appears to be a three year study at an art institute in Russia on moistmedia, mentioning the same principles of converging technology with biology. Although the information might be sparse at this point in time, and further research needs to undertaken, I think it is still reasonable to

[1] National Centre for Contemporary Arts, Kaliningrad Branch, Russia, 'Tagny Duff (Canada) – Moist Media Archives – Living Viral Tattoos', http://videodoc.ncca-kaliningrad.ru/participants/vi-semi-living/tagny-duff-canada/ (accessed 9 Aug. 2013)

suggest that this is most definitely a Transhumanist artisan's method of describing the synthetic evolution of the masses.

AGI: The fact that AGI branches off from **Computers**, and itself, connects with other related technologies leads me to conclude that it is an acronym for a topic that that has been mentioned throughout this book: Artificial General Intelligence. AGI, as discussed previously (see, **Artificial Intelligence**), is the first stage - the basic intelligence - of the 'brain' of a computer network. AGI gives an autonomous robot the ability of basic problem solving and manoeuvrability, recognition of persons and objects, as well as other basic functions depending on its software programs. AGI is essential in that it must be mastered before artificial intelligence can be introduced more widely for robotics.

AGI could be used in a number of ways, but I see it fitting into the Tree to function as described in the following examples:

a. If a human subject had cognitive abilities that were inept, or impeded in some way, and wanted or needed to function better, the subject could be augmented surgically with a brain-computer interface that would be programmed with the basic functions the person was unable to accomplish. This seems like an excellent option for the individual to gain or regain a sense of normality, but when remembering the risks that brain-computer interfacing carries, I think it is better to consider alternatives.

b. Perhaps a normally functioning intelligent human is not satisfied with learning the traditional way and chooses to use, instead, a technology based on mind-uploading in the form of a BCI device. It would be possible to learn anything imaginable - from the Ancient Sumerian language, to how to build a bio-weapon - in as little time as it takes to buy the program and have it uploaded into the subjects now bio-computerized brain.

c. Going one step further, and with the ultimate Transhumanism goal of Artificial Superintelligence (ASI) in mind, you could either have a more advanced BCI implanted, or instead, replace your old gray matter with an Artificial Brain. ASI would make it possible to have the world's knowledge at your mental fingertips without ever having to take time out of your day to enjoy reading a book or learn a new hands-on skill. It would be something similar to what was displayed in *The Matrix* movies.

In summary, I see the AGI branch here as depicting the progression of both BCI artificial intelligence for the transhumans, as well as the progression of robotics that will aid in a synthetic evolution.

AL Digital: At first I was a bit perplexed about the meaning of this branch, but after some research and cross referencing, I have concluded with almost complete certainty that it stands for **Artificial Life Digital**, which is another way of describing a virtual reality Avatar equipped with artificial intelligence of some sort. This would be comparable to the world of Second Life where real humans create virtual Avatars, but with the addition of Avatars that are not controlled by any human and fully operate as an *artificial digital life form*. This would pave the way for creating holographic Avatars that can be utilized as servants, companions, friends, or even virtual lovers.

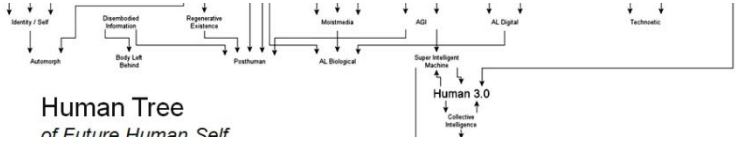
An example of an AL Digital in holographic form would be that of one depicted in the popular video game, *Halo,* in which there is a holographic woman named Cortana[1], who feels emotions, is intelligent, and befriends the hero of the game. It is also best comparable to the holographic Avatars being looked at as a Posthumanism state of being by the people behind the 2045 Initiative.

[1] HALO Waypoint, 'Universe – Characters – Cortana', http://www.halowaypoint.com/en-us/universe/detail/edc50c73-a00c-4526-8e41-fbe8843b49e9/cortana (accessed 10 Aug. 2013)

This specific branch line, in summary, seems apparently to be designated for the general public's assimilation and transformation process of Transhumanism. The next branch line is the final destination for the general public, and has a posthuman state of existence divided into five categories, or, perhaps more accurately, five *posthuman races*. While not labeled as Human 2.0, with everything I have researched on the subject I am certain it is reasonable to assume that this is a Human 2.0 'commoner' scenario, decided by those leading The Construct.

As explained initially, with the Human 1.5 progression, Human 2.0 is shown in the Transhuman Family Tree, but branched separately, and I will delve with more detail into my suspicions for this occurring, towards the end of this chapter.

The Race to Human 3.0



Automorph: Made popular by Hollywood in the past several years, the word, *automorph*[1], was used to describe the transformation process of the fictional characters known as *Transformers* in the movie series of the same name, but this is a word you will not find in any collegiate dictionary. Automorph is a portmanteau word - a word that results from the combination of two words. It consists of the word, 'automatic', which can mean having a self-acting or self-regulating mechanism, and the word, 'morph', meaning to undergo transformation. When the two and their meanings are merged - 'auto' and 'morph' - it creates a word with a definition described as a self-acting and self-regulating entity that has the ability to change shape at will; but how does this apply to the name of this classification of the posthuman commoner?

Depending on the success of the 2045 Initiative, it could mean a holographic nano-particle structured Avatar body that has had the mind of a human downloaded into its artificial brain. One of the concepts of the 2045 Avatar is that the now human mind occupying the synthetic body will have the ability to transform into any shape and appearance at will, and this would be done through a more nano-mechanical process: in other words, the ability to automorph.

Other possibilities could arise on a more cyborg and cybernetic level with the integration of nanotechnology and other cybernetic components into a biologically augmented human

[1] Wikia, Inc., 'Automorph Technology', http://transformers.wikia.com/wiki/Automorph_Technology (accessed 10 Aug. 2013)

body. Perhaps the automorph capabilities would not be to the extent of an Avatar, but more subtle like synthetic skin that might have features such as the ability to change color, tone, or even slightly alter physical appearances with eye color, lip shape, and subtle bone structure. This is much like the gaming networks of today in the way that people who are now mind-slaves to the virtual world of Avatars could alter their cyber-self at any time - and if they had an ability like this in the Posthumanist world, I do not doubt how often they would use it.

Augmentation is nothing new with the medical field of plastic surgery. There are always new techniques and technologies being developed in the desired world of physical augmentation, and even now there are people who voluntarily get magnetic strips implanted into their fingertips as a new age form of biometric security for whatever they choose. Cybernetic eyes are not too far away from being available, and even computerized tattoos featured on technology based websites, are on the verge of hitting the market. It's easy to see that the concept of creating a real life Posthumanist Automorph species is plausible - at least on some levels - and as this technology continues to reach new heights, we very well could see fully capable Automorphs walking amongst us.

Body-Left-Behind: I am sure that if I asked someone deeply wrapped up in the New Age movement what this means to them, they would probably give me an answer involving out of body experiences (OBE) or astral travelling, or something else dealing with metaphysical subjects. As previously explained, there is a growing number of 'New Agers' getting locked into philosophies of Transhumanism, and I have seen Transhumanists utilize philosophies of metaphysics to further the fan base of their agenda. Nothing in the world of The Construct strictly consists more of New Age metaphysics: it always has science and technology as the backbone of any idea.

This Body-Left-Behind species of the posthuman commoner left me stumped for a bit. To me, this one really does offer a mixture of New Age metaphysical ideas with those of the

Transhumanist, and I had to cross reference several resources to see exactly how this would fit together. It could be yet another classification in which the 2045 Initiative Avatars could play a role, since, in that concept, the body is indeed left behind with only the human's mind converging with the synthetic body. In this case, though, there is still a body, and it is in my opinion that Dr. Vita-More, and whomever else may have assisted her in designing this Tree, would not be giving two new sub-species of posthumans different names when they are essentially the same thing. That left me with really one only theoretical conclusion.

Quantum computers and virtual reality technology has been increasing exponentially these past 10 years, and with the growing mind control pandemic of online gaming and virtual lifestyles (Second Life) becoming the new 'reality' for people of all ages worldwide, this seemed to be the most plausible direction to look into. Imagine something like the original movie, *Tron*, where the main character gets zapped into the newly created world of cyberspace. In the movie his body comes with him in a way, as it becomes transformed into a more cyberspace level of physical being. What if something similar has already been, or is on the verge of being developed that has the capability of extracting your soul (mind) and transferring it into a virtual world that duplicates all needs, wants and more of real life much like Second Life offers people.

Could it be a possible to have such technology in existence? Well, scientists and engineers are already working on developing technology similar to this concept, and DARPA has publicly stated program research into implanted memories[1].

[1] Two sources to consider: Madison Ruppert, 'Psychologists demonstrate implanting non-believed false memories in troubling study', *Activist Post*, 29 Apr. 2012, http://www.activistpost.com/2012/04/psychologists-demonstrate-implanting.html (accessed 30 Apr. 2012); Katie Drummond, 'Pentagon's Project 'Avatar': Same as the Movie, but With Robots Instead of Aliens', *Wired.com*, 16 Feb. 2012, http://www.wired.com/dangerroom/2012/02/darpa-sci-fi/ (accessed 4 Mar. 2012)

That could be considered prototype technology for the eventual possibility of a Body-Left-Behind posthuman who no longer resides on this plain of existence, but spends an eternity in their new virtual reality of the cyberspace cosmos.

Posthuman: I believe that the standard commoner will most likely be a posthuman (Human 2.0). By 2045, or sooner, this model of human will be the most economical and readily available to the general public. Cybernetic augmentations like BCIs, RFIDs, nano-cybernetic skin, Wi-Fi projection nano-computer contact lenses, and even fully bionic appendages, will become commonplace throughout society - and only the organic humans will remain (and most likely in exile, and considered taboo as well) as archaic threats to the new assimilation.

Examples of posthuman augmentation technology is throughout this book, with the best example being that of Dr. Vita-More's *PRIMO Posthuman*, which does display and explain how the human body will be able to augment anything they desire, for the right price, to be certain. We will most likely find that the global market will, eventually, see the rise of a small handful of global mega-corporations that corner the market on the augmentations. But, as with any market, a black market will form with pirated software and reverse engineered knock-off products. This will lead to software viruses, cyber-terrorism, posthuman identity thefts, and more.

The life of a posthuman will only change in regards to it now residing in a world where the line between whether the posthuman or the machine is in charge will be thin and watery. The imperfections of the human will still be incorporated into everyday life, and my concern is that the posthuman elitist will recognize this problem, and decide that the commoner models are already obsolete and in need of being recalled.

AL Biological: AL Biological (Artificial Life Biological) is derived from its prototype, **AL Digitial**, as explained earlier. The AL Biological posthuman commoner is unique from all the rest because it is purely an artificial life form. This is where

human genomics, genetic engineering, and synthetic biology play key roles. The AL biological posthuman is nothing more than a test tube 'human' that has been designed and constructed in a laboratory setting. It would be entirely different than all the rest of the posthumans, and may even look alien in appearance. The best example I can give is to recall the character, Ginger, from the movie, *Splice* (2009)[1], who was genetically engineered using DNA from different species, as well as the human species, in order to create a new form of humanoid being.

We already see the ground work of this being accomplished with the self-replicating bacterial cell known as *Synthia* (technical name: JCVI-syn1.0) designed by scientists at the J. Craig Venter Institute. It is the first synthetically created life form and has laid the foundation for this field of biology to expand further. Recently, DARPA has announced a program of theirs to genetically engineer the human being with a synthetically created 47th chromosome[2]. They want to improve upon Human Artificial Chromosomes (HAC) which will make it possible to improve on Super Soldiers, among other things. There are research institutes even now working on genetic alterations so that people can give birth to 'designer babies'[3].

All of this combined can be considered the ground work for later developing the AL biological posthuman. Consider the following scenario:

A couple would like to have a child, but the mother either does not wish to, or cannot, go through pregnancy. The couple might

[1] *Splice*, dir. by Vincenzo Natali (2009; Gaumont, 2009 Online)

[2] Two sources: Aaron Dykes and Melissa Melton, 'DARPA to Genetically Engineer Humans by Adding a 47th Chromosome', *Activist Post*, 29 Jul. 2013, http://www.activistpost.com/2013/07/darpa-to-genetically-engineer-humans-by.html (accessed 29 Jul. 2013); SBIR Source, 'Advanced Tools for Mammalian Genome Engineering', 26 Jul. 2013, http://sbirsource.com/grantiq#/topics/88854 (accessed 29 Jul. 2013)

[3] Heather Long, ''Designer babies': the ultimate privileged elite?', *The Guardian*, 9 Jul. 2013, http://www.theguardian.com/commentisfree/2013/jul/09/ivf-baby-born-genetic-selection-ultimate-elite (accessed 10 Jul. 2013)

choose to attend a corporation that offers services in AL Biology, and after a consultation, and browsing the catalogue, the couple provides DNA samples, and their soon-to-be genetically created baby is prepared to be grown. After, perhaps, 3, 4, or even 9 months, the baby can be removed from its growing vessel, and then perhaps receive, as just one example, a mental program of arts, science, or whatever else the parents desire the child to excel at.

AL biological posthumans would open up a whole new level of risk, unpredictable evolutionary process, and perhaps unexpected side-effects of cross breeding. Once again, it is essentially human (or, more correctly: posthuman) playing the role of 'The Creator' as well as messing with nature. Nothing good will come from this, and I guarantee that if this does come into fruition we are in for one hell of a difficult period.

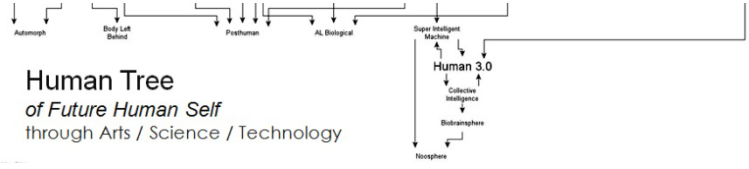
Super-Intelligent Machine: The Super-Intelligent Machine (SIM) is the last in this branch line of the Tree and is strikingly different than the four previous types I have discussed. According to the Tree, and if I am correct, it appears that this posthuman being would not be of any human origin, but would instead be a product of the Transhumanist process.

Its origins are technological based as displayed on the Transhuman Family Tree, stemming from **Computers**, **Hardware**, **Software**, **AL Digital**, **Cybernetics**, and of course, **Technology**. My theory is that this is just the final destination as a result of the evolutionary chain of computer science. One side of the spectrum was for the integration of human and machine, and while the machine side became more and more advanced, a new 'species' came into existence which is the fully artificial super-intelligent (ASI) robot. Many science fiction movies, from *A.I. Artificial Intelligence* (2001)[1] to *I, Robot* have depicted this as a futuristic possibility.

[1] *A.I. Artificial Intelligence*, dir. by Steven Spielberg (2001; Warner Bros., 2008 DVD)

I covered this type of scenario extensively in the robotics section (see, **Robotics (Automata) and Bionics**). These scenarios would be a coexistence between posthumans and ASIs, both working together, cohabitating, and perhaps becoming involved in intimacy. There is also the very likely chance of an ASI taking an authoritative position, such as a supervisor, or a member of law enforcement. The problem here is the absolute risk of The Singularity occurring, and the superintelligence age of the machine taking the role of master. With this sort of scenario taking place, we could find ourselves in a situation much like *Dr. Hugo de Garis* had described of a global war. Allowing a machine more independence and intelligence than its engineers is never a good idea.

The Genocidal Sphere



Towards the beginning of this section I covered the **Human 1.0** and **Human 1.5** evolutionary steps, from the side of the Tree that I theorized would be the synthetic path of the oligarchs of Transhumanism, along with other H+ elitists. Following the **Human 1.5** branch downwards, we shortly reach **Human 2.0**, and again, there is no explanation on the chart to describe the sudden transformation to a higher level, or, the next phase of the human, and no hints as to how the process will take place.

This leads me only to conclude that:

1) Although Transhumanism technology would not be different in the sense of the fields of technology utilized, I believe that there would be innovations of said technologies kept away from the public's knowledge. These would be devices and other elements of the technologies developed on a more top secretive basis to be used only for the upper class and chosen few. They would develop into more of a super-posthuman so as to have control over the commoner Human 2.0 models.

2) The accessibility, of course, would be tremendously regulated and limited to only those qualifying individuals welcomed to the 'Club of The Construct', an elite secretive bio-cybernetic society, of sorts.

At this point in my research, this is the best theory I can give as to why this side of the Transhuman Family Tree is so vague.

The branch that leads off from the **Human 2.0** stage is quite long, which, I believe, signifies either a period of waiting for the next step to be fully developed and operational, or, perhaps, a hidden synthetic evolutionary process that has to be conducted meticulously and with the utmost precision. It leads to what I had not seen before I unearthed this Tree, and that is, the **Human 3.0** of Posthumanity.

Going by this chart, it would seem that the Human 3.0, being the almost final destination of the evolutionary process, is a short period where all the Transhumanism technologies converge, which results in a super-posthuman unlike anything the early thinkers of the Transhumanism agenda could have even imagined. I believe at that the point between the Human 2.0, and during, or shortly after the period of the Human 3.0, what will take place at an unprecedented level will be what is known as *The Law of Acceleration*, or, *Accelerating Change*, as described by people like Ray Kurzweil and *Vernor Vinge*[1]. Below is the first paragraph from an article by Kurzweil posted on his website, 'Kurzweil AI', titled, *The Law of Accelerating Returns*.[2]

"An analysis of the history of technology shows that technological change is exponential, contrary to the common-sense 'intuitive linear' view. So we won't experience 100 years of progress in the 21st century - it will be more like 20,000 years of progress (at today's rate). The 'returns', such as chip speed and cost-effectiveness, also increase exponentially. There's even exponential growth in the rate of exponential growth. Within a few decades, machine intelligence will surpass human intelligence, leading to The Singularity - technological change so rapid and profound it represents a rupture in the fabric of human history. The implications include the merger of

[1] Wikipedia The Free Encyclopedia, 'Vernor Vinge', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Vernor_Vinge (accessed 11 Aug. 2013)

[2] Ray Kurzweil, 'The Law of Accelerating Returns', *Kurzweil Accelerating Intelligence*, 7 Mar. 2001, http://www.kurzweilai.net/the-law-of-accelerating-returns (accessed 11 Aug. 2013)

biological and nonbiological intelligence, immortal software-based humans, and ultra-high levels of intelligence that expand outward in the universe at the speed of light. [...]"

I believe this quote nicely sums up how this specific branch of the tree will progress, although, I assume, it will be done so with the more secretive advances in technology.

Is it possible that the Human 3.0 could be the plateau of this Transhumanism evolutionary process? Is there more theorized and discussed among Transhumanism peers, and being drawn out on the chalkboard for an even further step that would leave the posthuman commoners in the dust of their acceleration? Apparently the answer to these questions, at least in some aspects, is YES.

Take a good look at the Transhuman Family Tree and take particular notice of the five posthuman species of the commoners. They all stop, with the exception of one, with no indication of progressing any further. The one that does progress is not even human at all; the **Super-Intelligent Machine** has an evolutionary choice of moving towards Human 3.0 (but why this occurs I am still trying to figure out), yet the Human 3.0 species also appears to have an arrow of direction pointing towards the SIM. I speculate that this choice gives the Human 3.0 an option to move towards an *Avatar* state of being in which the person's mind would be uploaded into the artificial brain of the Super Intelligent Machine.

The SIM, however, does have one other choice, and it is a bit of a quantum leap on the Tree, leading to what seems to be the absolute and final destination of this techno-evolution - the **Noosphere -** which we will cover last.

Up to this point in the Tree, there has been no detailed information regarding the rise of The Singularity, and considering the timeline being predicted for such an occurrence, I was expecting to find it in the latter half. It was not until I observed the step directly after the **Human 3.0** period, that I

found what could be determined as a sign that The Singularity is scheduled to occur. **Collective Intelligence**[1] is the next stop after Human 3.0 on the Tree, and with everything I have researched about The Singularity, including those metaphysical ideas of collective consciousness, I believe this stage to most likely be the beginning of The Singularity - at least in some form[2]. With all that takes place prior to this point, such as the convergence of human and machine, virtual mind-uploading, super-intelligent machines (superintelligence is an essential component of The Singularity), and the accelerated process of transforming from Human 3.0 to the next step of collective intelligence, it appears to meet the requirements.

If so, this would mean the convergence of super machine intelligence with the not-so-anymore biological posthumans, seeing the creation of a global central computerized network where all machines and posthumans are interconnected in the cybernetic world of the 'New World Matrix'. This could be a rather short period of time because if Dr. de Garis is right, the still remaining organic humans will most likely go to war with the now posthumans and their machines. If the humans are strong enough, and they fight hard enough, we could potentially see a global war with casualties in the billions. Alternatively, the humans could go underground, so to speak, and leave this new techno-reality behind to start their civilization over again. The world would be split, but unfortunately over-ruled by the cyber-masters. This **Collective Intelligence** phase of the Tree, however, turns out to be open for further growth, as you can see.

From **Collective Intelligence** we move onto the **Biobrainsphere**, which is another word created by merging others: *bio*, as in biological or biology, is the study of life; *brain*: the organ of a living creature that stores memory, and is

[1] Wikipedia The Free Encyclopedia, 'Collective intelligence', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Collective_intelligence (accessed 12 Aug. 2013)

[2] Massachusetts Institute of Technology, Center for Collective Intelligence, http://cci.mit.edu/ (accessed 12 Aug. 2013)

the central control for organs and the central nervous system, (as well as operating much more); and, *sphere*, a circular shape such as a ball, or planet. A *biosphere* is defined as the global sum of all life in an ecosystem, and is also recognized when referring to a biodome structure that is self-contained, self-sufficient, and contains life and environments from around the world in order to conduct research.

Could a biobrainsphere be a highly advanced brain (state of consciousness) that contains in a more bio-cybernetic state all the knowledge and power of the planet or possibly beyond? Is this stage of the Tree depicting an even more obvious joint theory of those discussed by New Age metaphysics and Transhumanism? Could this be a stage where the technology is so advanced that it becomes a state beyond nano and beyond flesh, but transforms those who once were Human 3.0 into an energetic form? Or perhaps it is a bit of both, where the energetic state of existence is one the verge of happening but the biological ties have not yet been able to be broken in this way. At this point, until I find more information on this stage of the progression, we can only speculate about what exactly Dr. Vita-More and her possible co-creators are planning.

We have now reached the apex of the Transhuman Family Tree, and it reaches new heights of techno-metaphysical ideologies and philosophies: the last stage of this complicated synthetic evolutionary Tree is known as the **Noosphere**[1]. Before I found this Tree I had no idea that the word even existed. Noosphere is defined as the sphere of human consciousness and mental activity, especially in regard to its influence on the biosphere and in relation to evolution[2]. There are several theories and claims as to how this word came to be, but all agree on its meaning as mentioned above.

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[1] Wikipedia The Free Encyclopedia, 'Noosphere', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Noosphere (accessed 13 Aug. 2013)

[2] Merriam-Webster, 'noosphere', http://www.merriam-webster.com/dictionary/noosphere (accessed 13 Aug. 2013)

In one theory by *Vladimir Vernadsky (1863 - 1945)*[1] the Noosphere is the third phase of the development of Earth, with the first two being the Geosphere phase (inanimate matter) and the second being the Biosphere phase (biological life). The Noosphere is the *mind sphere*, or sphere of human thought. According to Vernadsky the Noosphere emerges at the point where humankind, through the mastery of nuclear processes, begins to create resources through the transmutation of elements.

I believe this is an absolute final destination of the evolutionary process according to the designers of the Transhuman Family Tree. I believe it depicts how the neo-human overcomes and surpasses The Singularity, whether it was good or bad. This is the point where the Transhumanism technology has gone into a state of super-intelligent Posthumanism technology, which has reached a level of advancement that allows the oligarchs, and elite, to make that quantum energetic leap into a state of being that is far beyond the reaches of anything we see today, or perhaps have even been led to expect by 2045.

In summary, this evolutionary process would essentially create three levels of Posthumanity. The lowest tier, but in my opinion, the best, would be the organic human; the next tier, the posthuman (Human 2.0) commoners still residing on Earth, and who might possibly be slaves to The Singularity, fighting a war against the organic humans, or, instead, might be siding with them to try and stop the genocidal agenda of the superintelligent machines; and, lastly, there would be the posthumans of the Noosphere, or, perhaps we should label them 'noomans' - and this prompts the following questions:

Will these Noosphere posthumans consider themselves Gods? If so, how will they treat the 'lesser' humans and posthumans? Will the noomans reach a level of consciousness that finally

[1] Wikipedia The Free Encyclopedia, 'Vladimir Vernadsky', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Vladimir_Vernadsky (accessed 13 Aug. 2013)

opens their eyes and they become benevolent allies, or will they see us as their slaves? Is any of what is depicted in this tree a possibility? I believe to some extent it is, and, if so, then we are in for an unprecedented future the likes of that which has never been seen - and, if I am right, then I would end here with one of my favorite quotes: "**Whatever does not kill me, had better run.**"

POSTHUMANISM AND THE SINGULARITY

A comparable definition of the two terms, and an explanation of the intertwining similarities

Future Risks Revisited

Definition of *POSTHUMANISM*

1. Posthumanism, also known as Human 2.0, is the concept of the creation of a new type of humanity (human species) through the technological process known as Transhumanism in a method of synthetic evolution, using technology in fields such as biotechnology and brain-computer interfacing. This process creates a new paradigm where human and machine are integrated in bio-cybernetic unification under one superintelligent control. Supporters of this ideology believe it is the only reasonable option to preserve and evolve the Human race.

Definition of *THE SINGULARITY*

1. The Singularity is the hypothetical future creation of superintelligent machines. Superintelligence is defined as a technologically-created cognitive capacity far beyond that which is possible for humans. Should The Singularity occur, technology will advance beyond our ability to foresee or control its outcomes, and the world will be transformed beyond recognition by the application of superintelligence residing over humans and/or human problems, including poverty, disease and mortality.

Although there are slight differences between the two terms defined above, each will be discussed together in order to

compare differences and show similarities.

With the concept of Posthumanism[1], what you have is a new kind of synthetically evolved human; a new species comprised of bio-cybernetics - a pre-configured combination of the various technologies covered and discussed in previous pages, from brain-computer interfacing, to augmented reality. The 2045 Initiative is attempting to design a posthuman, and by 2045, they hope to have created a synthetic type of *vessel* that has characteristics of holographics, but is constructed using physical nanotechnology.

The idea is that this vessel will then have a human's mind (soul) uploaded into the artificial superintelligent brain it will own, and the vessel (body) will have the ability to transform into any shape desired, at any given time; plus, live forever, never get sick, and not even worry about eating food. This is just one posthuman concept that has been proposed.

Where the similarities come into play when comparing The Singularity[2], is that if this type of Human 2.0 comes into existence, there will obviously be advanced technology required to build and repair the 'Avatar' the human soul will occupy. This kind of technology will most likely have artificial intelligence and superintelligence itself.

In order to simplify what may be at risk of being a complicated compartmentalized network, a decision will need to be made that would consider all required needs for a smooth operating system controlled by a global centralized superintelligent computer network that will encompass the monitoring and surveillance: the regulatory demand and control, and the global operating system in the one unit for all Avatars of the

[1] TheNanoAge.com, 'Transhumanism and Posthumanism', http://thenanoage.com/transhumanism-posthumanism.htm (accessed 10 Oct. 2010)

[2] Singularity Symposium, 'What is the best definition of Singularity?', http://www.singularitysymposium.com/definition-of-singularity.html (accessed 12 Sep. 2012)

posthumanist world. The aforementioned network, as a matter of course, would then become The Singularity[1], because the neo-humans would be so greatly dependent upon that it would be out of any human control, and the machine would be looked upon in the same light as one would a new God.

With Posthumanism[2], many of the simple things we enjoy, such as eating a good meal with friends, or indulging in a piece of cheese cake, could simply become not feasible and would cease. It was David Pearce who stated that genetically-engineered vatfood would need to replace flesh from factory-farmed non-human animals in our diets - and in a world where humans have become dependently incorporated with cybernetics, perhaps we would also become reliant on being nourished by a sort of 'vatfood', or a food supplement in pill form, which would likely have a nanosensor in it so that the regulatory system in charge can monitor and/or be alerted by inconsistent 'eating' habits.

Maybe the days of going to the lake for a weekend camping trip will become obsolete even more than it has already become. With your brain-computer interfacing unit implanted into your brain, and a wireless internet linked system working in correlation with your optical nerve implants, you could be put into a suspended state of consciousness and 'enjoy', instead, a virtual weekend of fun, like what was depicted in the movie, *Total Recall* (1990).

As far as The Singularity is concerned, perhaps the superintelligence network has a sort of algorithm program where it calculates everything about you, who you interact with, and considers the level at which your neurotransmitters respond so it can decide what type of virtual vacation is suited for you, based on its own results. You do not get the choice because of

[1] TechnologicalSingularity.net, http://www.technologicalsingularity.net/ (accessed 20 Oct. 2012)

[2] Posthumansim.com, http://www.posthumanism.com/ (accessed 10 Oct. 2011)

how you have been wired as a posthuman, which may have occurred shortly after birth - for the sake of the species, of course.

Could it get as bad as some say it might, to a point where we not only transform into these posthumans, but, eventually lose control of our own creations, only to have the now self-aware network decide we pose too much of a risk based on our tarnished past of war and pollution, and set about to eliminate us?

Is it truly possible to reach a point in our future similar to what was depicted in the series, *The Matrix*?

I do not find these to be unreasonable questions because such entities like DARPA, J. Craig Venter Institute, Boston Dynamics, Foresight Institute and others exist, and *are working* towards a cybernetic AI world occupied by the cybernetic posthuman.

Everything I have discussed throughout this book surmounts to this one chapter; to these two realistic possibilities, whether it is both that spawn into fruition fully, or whether one dominates over the other. Personally, I see this scenario playing out as we, the human, transform into they, the posthuman, as a result of the synthetic evolution of Transhumanism. At the same time, I foresee the superintelligent AI network coming alive as a new type of cyber-God: one we would come to know as The Singularity.

These two possible outcomes as a result of Transhumanism, are, I believe, *not* inevitable - at least, not yet. Unless more people wake up to this global pandemic, there is no doubt in my mind that those of us who resist this sea change *will* be in a literal fight for our existence and our entire way of life. We could very well see a split in the human species: one species becoming two, with the second branching into a possible third, and even a fourth. The original organic human who has control of their own *free will*, will certainly persist - at least in the interim, but

the other species, who is currently becoming more and more increasingly sub-human by socially engineered design would continue to take the synthetic path toward the 'Messiah' known as The Singularity, in the unforgivable God-like (but God less) creative guise of the posthuman.

CONCLUSION

Humanity, Sub-Humanity, and Posthumanity

The Evolution of an Idea

In contemplating whether or not to finally document, for public consumption, my deeply researched and strong views on the topic of Transhumanism and all of its sub-branches, of which it includes the technology and synthetic biology agenda designed and destined to change our species into something it never was before, I had originally discussed the idea with a friend of mine, who encouraged me to put together what I only ever intended to be a 'piece' on Transhumanism, and all that it involved.

I originally told of her of my plan to write a 10 to 15 page *overview* on the topic. My intention was to merge the volume of my research into a short-format 'brief' on the Transhumanism/Posthumanism/Singularity subject, as all are connected; however, I had a feeling early on that such an endeavor might be met with a few challenges - the first being how to compress such a massive subject into a length of 15 pages, at most.

My motive behind this project was to produce a paper that could be made freely available, which would contain a detailed and clear description of something that has had unbalanced treatment - one side of it publicized heavily (the fantasy/sci-fi aspect, and the 'pros'), and the other (actual facts and real probabilities, and the 'cons') mostly ignored by the alternative media. Though it is a topic of discussion in some circles, the information that is published or discussed via radio or other media has, in my opinion, had a serious lack of coverage: or, when brought to the attention of its listeners, or readers, has not been done in a proper manner.

There is discussion of cloning, but much of what I have read in my research should be classified more as theory rather than factual data, and other times the person discussing it divulges information that is outright irresponsible because they have no

documented evidence, and they are unable, or unwilling, to present any kind of hard proof to back up their claims.

Sometimes, the alleged research I come across is just plain insulting to those of us who spend countless hours looking behind doors most regard as boring or pointless. It is what is found behind these rarely opened doors that more often than not leads to undeniable evidence that simply cannot be disputed - even by the most extravagant of conspiracy theorists. On the other hand, I understand that there are things in this world that do exist, yet, gathering evidence to prove it to the masses can unfortunately be difficult, with some evidence unobtainable, no matter how many trails have been followed. But for the purposes of integrity, and as a respectable researcher, one *must* state as much, rather than being vague or mis-informative.

So, with that said, and going back to my original idea of writing a short overview of this subject, I soon began a task others might find literally impossible. I decided to sift through my massive archive, titled, *Transhumanism*, which contained folders categorized into such subjects as *Nanotechnology*, *Genetically Modified Organisms*, *Virtual Reality*, and 34 other areas, each covering a different branch of this multiplex: this multi-construct subject. Combined, I have an additional 857 sub-folders, categorized themselves, which, as at the time of writing, contains 12,039 individual documents, publications, presentations, videos, and more - all that have been reviewed and saved personally by me for the purposes of future reference, such as in the writing of this book.

I spent days back to back re-watching the Transhumanism and Futurist documentaries[1] I had archived, as well as going over my DARPA and IARPA folders, which, alone, is another 3,100 plus individual documents, reports, and so forth. The point is

[1] A short list of some of the documentaries I watched for the purposes of research into this subject. Singularity Symposium, 'What are some good Singularity Documentaries?', http://www.singularitysymposium.com/singularity-documentaries.html (accessed 12 Jul. 2013)

that I knew almost immediately that this would not be a simple or short task, and definitely nothing near as easy as I had first planned. I felt like I would not have done justice to the importance and complexity of such a massive topic as this, if I simply summarised the most important aspects in fits and spurts - so, in the end, I decided to try my best to put together a comprehensive 'paper' (now, book) that could serve as a gateway into this world of technology, philosophy, and its plan for human evolution.

I became frustrated and exhausted on many occasions trying to pick out the best information so that I could construct it in such a way that would be easy to comprehend for everyone, regardless of whether or not they had even heard of Transhumanism, or had any prior knowledge, however vague, of the subject. In the end, my only desire is to have produced something that may spark an interest in people to, at the very least, consider the points I have made and produce even more questions to pursue alone, or debate together in blogs, forums, or groups. By no means has it been my agenda to persuade people, or tell them what they must believe; on the contrary, I would hope that the reader makes up their own mind and goes so far as to verify what I have written about. It is a challenge to everyone who may read this, and in the end, I hope you will see that I have indeed made some valid arguments on the matter.

When I had reached 50 pages of writing, I asked myself if this was too long, but I kept writing anyway. When I reached 70 pages, I asked myself the question again, but after reviewing my notes I knew I had more that could not be left out. I had to find ways of compressing some topics, and doing a lot of editing, which aggravated me greatly. To really cover each of the topics I have included in this book - and to do it right - I would have to create something akin to a 'Transhumansim Encyclopaedia', with somewhere between 10 to 12 volumes. The first volume alone would have to cover just the origins and history of Transhumanism: that is how extensive this subject is. In fact, the amount of sources and resources of information I have pertaining to this book was, for me, unprecedented, and I

decided to make sure I picked the best out of the bunch to utilize for the purposes of the footnotes.

Perhaps, in the future, if time permits, this could be a project worth embarking on - but for now, I hope to have given the reader as much as I got out of writing this. During the course of weeks into months that I spent authoring this book, I learned even more on the topic, and had a great time reviewing essential information, and, without a doubt, I consider my writing a valuable learning experience that I only hope to improve upon as time continues. My only request from you, as the reader, is that **if you feel this had some value to it**, and, in your opinion, is worth being made more aware of, then **please feel free to share this with everyone**. People need to be alerted to the high risk factors involved in this technology, should it get out of control. We could be in for some seriously difficult times, the likes of which we have never lived through before in our civilization's history.

I know deep down in my soul that progress is a positive thing for us all, and I even see some fantastic potential for some of the technology I have discussed in these pages, but what all of us must recognize and respect are the risks each one carries. No doubt we have all heard the term expressed in different ways, but opening Pandora's Box - an action that may seem small or innocuous - could turn out to have severe and far-reaching consequences. It only takes *one* person to open it . . . and that is something we need to consider from many perspectives.

Whether it may be a synthetic biological self-replicating bacterial cell, or a form of it, a swarm of nanobots, a cybernetic robot with artificial intelligence that, unbeknownst to its designer, has suddenly become self-aware and decides that we are expendable - however small the threat - we *must* proceed with the utmost caution, or we may find ourselves trapped in The Singularity that some, including myself, are trying feverishly to warn people about.

I fully embrace change - particularly an organic evolution resulting from the law of nature. If change came upon us as a need to survive a cataclysmic disaster, we would find a way to become empowered again. Our unstoppable human will to survive would ensure this, and this very fact can be seen throughout past eras and times of major change in our Earth's history. But, playing the role of God, and utilizing technology to create that change, by speeding up and altering our evolution, justifying Transhumanism - creating a synthetic species - simply to *indulge* our impatience and superiority, we only risk nature fighting back. And this could happen in ways unpredictable.

I do not believe that there is some sort of global Transhumanism cabal meeting in secret locations with secret handshakes and a membership roster comparable to the Bilderberg group, but what I have concluded as a result of this research is that what we are witnessing is something like the '100th Monkey' scenario[1].

The scenario begins with one monkey on a Japanese island who finds a sweet potato (deliberately placed) and eats it, but cannot stand the dirt and sand that covers it. The next time another sweet potato is found, the young monkey discovers that by washing it first, it is much more pleasant to eat.

More sweet potatoes are deliberately left on the island, and other monkeys who had observed the initial monkey washing the potato begin to follow this technique, and in a short time, all the monkeys on the island had learned this behaviour and it became a normal process.

Not long afterwards, monkeys on other isolated islands of Japan (where other sweet potatoes were placed) began doing the same thing at approximately the same time - practising and teaching

[1] Ken Keyes, Jr., 'The 100th Monkey – A story about social change', WowZone.com, http://www.wowzone.com/monkey.htm (accessed 27 May 2013)

other monkeys on their island this newly learned behaviour - but without being physically present to watch the first monkey wash that first sweet potato. How is this possible?

We find this phenomenon happening throughout our own history with cave pictographs, and the invention of chariots that happened on every continent by civilizations, who, for hundreds of years, did not communicate with each other, or rarely did so. We find ancient technology that is almost exactly the same from South America to Egypt, and even today, we find that new inventions and new methods of accomplishing different things tend to surface around the same time, with an ocean between each, and yet, there was no collaboration between the originators.

My point is that I believe we are witnessing a similar phenomenon with Transhumanism - the difference, of course, being that unlike ancient times, we can communicate instantly, but I still believe it is happening without the aid of the worldwide web in some cases. I see too many astonishing similarities, and way too many international trends to believe that when it comes to Transhumanism, some sort of elite group could even handle controlling it. Maybe there are aspects of the so-called 'Butterfly Effect' involved, or perhaps even 'Chaos Theory'[1].

It could be that this becomes such a vast movement that grows in popularity more and more every day, or that it has indeed already sparked a type of 100th Monkey effect. Perhaps, instead, I am unjustified in my opinions and have read my research wrong, or maybe this is all just an illusion. Maybe none of us are real at all, and we are just virtual Avatars in a galactic role-playing game for some group of pre-teen alien species we know nothing about.

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[1] Two sources: Wikipedia The Free Encyclopedia, 'Chaos theory', Wikimedia Foundation, Inc., https://en.wikipedia.org/wiki/Chaos_theory (accessed 10 Dec. 2012); Bishop, Robert, 'Chaos', *The Stanford Encyclopedia of Philosophy* (Fall 2009 Edition), Edward N. Zalta (ed.) http://plato.stanford.edu/entries/chaos/ (accessed 10 Jul. 2013)

Am I just paranoid about the whole thing, and have I manifested some sort of psychosis that is obsessed with science fiction movies? Maybe there is just a big red reset button we can find to push, and all this techno-madness will simply wash away. Or, maybe I *am* right? Perhaps there *is* something to what I have been saying, and we are on the cusp of something really big, or really terrible, that will create a whole new paradigm.

It is possible that man and machine may coexist as one unified bio-cybernetic entity, and all will be bliss for the posthuman world; one of no sickness and no death, where you can morph into any shape you want to be in, living an augmented reality, or fully integrating into the global Second Life construct. I imagine this would be quickly embraced by those of sub-humanity who would easily consider conversion in exchange for 'salvation'. Perhaps worshipping and singing high praise to their Messiah - the new God - *The Singularity*, sounds like the answer to everyone's science fiction dreams.

Or, perhaps, what we are witnessing, instead, holds a darker and more dangerous potential that if unleashed, is unable to be controlled by its creators. If so, we will see a paradigm no human in their right mind would ever wish for. Our world will be one of servitude to the centralized global superintelligent AI computer network where our lives are no longer our own, and any serious resistance to the machine will result in termination. With those of sub-humanity now converted, embracing the life of Posthumanism under the rule of The Singularity, it would be up to the few remaining organic humans to fight for our lives, and our free will, and our very souls in order to be the last victims, and the last of our species, as a result of total annihilation.

In closing, I would like to leave with the following thought that I hope the reader will digest and take to heart:

The only impossibilities

are those that you have been led to believe

are impossible.

There are no impossibilities:

look beyond the next horizon,

and you will exist free.

GLOSSARY OF TERMS

A

abolition: the action, or an act, of legally prohibiting a system, practice, or institution deemed harmful

abolitionist: one who favors abolition (see, **abolition**)

Above Top Secret: Sensitive Compartmented Information (SCI) or special access program (SAP), classified projects, and/or information given a security clearance at a level higher than Top Secret

ACLU: American Civil Liberties Union

Agenda 21: a referendum and schedule for environmental protection, drafted at the United Nations' Earth Summit of 1992

agent provocateur: one employed to induce others to break the law so that they can be convicted

AGI: (see, **artificial general intelligence**)

agnostic: one who believes (or is not committed to either believing or disbelieving) that nothing is known, or can be known, of the existence or nature of God.

AI: (see, **artificial intelligence**)

AL: (see, **artificial life**)

alchemist: one who studies or practices alchemy (see, **alchemy**)

alchemy: the medieval forerunner of chemistry concerned with the transmutation of matter - in particular, with attempts to convert base metals into gold, or find a universal elixir to cure disease or prolong life

alpha wave: an electrical rhythm of the brain with a frequency of approximately 8 to 13 cycles per second that is often associated with a state of wakeful relaxation, also called *alpha* or *alpha rhythm*

ammonium chloride: a white crystalline volatile salt NH_4Cl that is used in dry cells, and as an expectorant - also called *sal ammoniac*

anarchist: one who believes in, advocates, or promotes anarchism or anarchy; *especially* one who uses violent means to overthrow the established order (see also, **anarchy**)

Anarcho-Transhumanism: an adaptation of anarchist ideals (see, **anarchy**) combined with those of the Transhumanist movement in cultural, intellectual, and political spheres.

anarchy: a state of disorder due to absence or non-recognition of authority or other controlling systems; also, an absence of government and absolute freedom of the individual: regarded as a political ideal

anthropic: of, or relating to, human beings or the period of their existence on earth

antispeciesist: one who is against speciesism (see, **speciesism**)

Antispeciesist Movement, The: a social movement opposed to speciesism, and which refers to the following principles as a primary aim:

> *1. Do not kill, cause suffering to or discriminate against sentient beings*
> *2. Do not utilize resources which have caused sentient beings to suffer*

AR: (see, **augmented reality**)

artificial general intelligence: the capability of a machine to perform 'general intelligent action'

artificial life: the simulation of any aspect of life

artificial intelligence: the capability of a machine to imitate intelligent human behavior

artificial parthenogenesis: the process of utilizing physical and chemical agents in order to stimulate unfertilized eggs

artificial super-intelligence: the capability of a machine to surpass the intelligence of the most intelligent humans.

ASI: (see, **artificial super-intelligence**)

aspartame: an artificial, non-saccharide sweetener used as a sugar substitute in some foods and beverages, made up of three chemicals: aspartic acid, phenylalanine, and methanol.

augmented reality: a live, direct or indirect view of a physical, real-world environment whose elements are augmented (or supplemented) by computer-generated sensory input such as sound, video, graphics or GPS data.

automata: a machine or control mechanism designed to follow automatically a predetermined sequence of operations or respond to encoded instructions.

automorph: a self-acting and self-regulating entity that has the ability to change shape at will.

autonomous: existing, or capable of existing independently; responding, reacting, or developing independently of the whole

avatar: an embodiment (as of a concept or philosophy) often in a person; an electronic image that represents and is manipulated by a computer user (as in a computer game)

bacterium: any of a domain (bacteria) of prokaryotic round, spiral, or rod-shaped single-celled microorganisms that may lack cell walls or are gram-positive or gram-negative if they have cell walls, that are often aggregated into colonies or motile by means of flagella, that typically live in soil, water, organic matter, or the bodies of plants and animals, that are usually autotrophic, saprophytic, or parasitic in nutrition, and that are noted for their biochemical effects and pathogenicity

B

BCI: (see, **brain-computer interface**)

Beatific Vision: In Christian theology, the beatific vision is the ultimate direct self-communication of God to the individual person

beta human: the prototype of human; in accordance with the Human Tree of Future Human Self (or, Transhuman Family Tree), this could signify the early pre-historic evolution of the human species

BAE Systems: a British multinational defense, security, and aerospace company headquartered in London in the United Kingdom, and with operations worldwide; it is among the world's largest defense contractors

BETA testing: a field test of the beta (prototype) version of a product (as software) especially by testers outside the company developing it that is conducted prior to commercial release

biobrainsphere: a highly advanced brain (state of consciousness) that contains in a more bio-cybernetic state all the knowledge and power of the planet, or possibly beyond

biochemical: characterized by, produced by, or involving chemical reactions in living organisms

bio-cybernetic: the application of cybernetics to biological science, composed of biological disciplines that benefit from the application of cybernetics: neurology, multicellular systems, and others

biodome: a form of a closed ecological system containing plants and animal species from various ecosystems, usually for the purpose of research by scientists

bioelectronic: a branch of science that deals with electronic control of physiological function, especially as applied in medicine to compensate for defects of the nervous system

bioenhancement: to temporarily or permanently overcome the current limitations of the human body through natural or artificial means

biofuel: fuels like gasoline or diesel produced from living organisms such as algae

biognosis: the investigation of life

bio-inspiration: the taking of biological inspirations of the living world and utilizing them for the advancement of artificial intelligence, computer science, and robotics

biometric: the process by which a person's unique physical and other traits are detected and recorded by an electronic device or system as a means of confirming identity

biomimetrics: the study of the structure and function of biological systems as models for the design and engineering of materials and machines

biomimicing: the mimicking of life using imitation biological systems

bionic: having normal biological capability or performance enhanced by, or as if by, electronic or electromechanical devices

bionical: mostly associated with enhancements or prosthetic technology for human eyes and optical nerves

biosphere: the part of the world in which life can exist; living beings together with their environment

biotech: (see, **biotechnology**)

biotechnology: the manipulation (as through genetic engineering) of living organisms or their components to produce useful, usually commercial, products (as novel pharmaceuticals); also, any of various applications of biological science used in such manipulation

black budget: a budget that is secretly collected from the overall income of a nation, a corporation, a society of any form, a national department, and so on, and usually covers expenses related to military research

BMI: (see, **brain-machine interface**)

brain-computer interface: (see, **brain-machine interface**)

brain-machine interface: a direct communication pathway between the brain and an external device,often directed at assisting, augmenting, or repairing human cognitive or sensory-motor functions

butterfly effect: the *sensitive dependence on initial conditions* in which a small change at one place in a deterministic nonlinear system can result in large differences in a later state

C

cabal: a conspiratorial group of plotters or intriguers

carbamide: a soluble weakly basic nitrogenous compound CH_4N_2O that is the chief solid component of mammalian urine; also, an end product of protein decomposition; also, a diuretic drug administered intravenously

catom: the abbreviated term for *Claytronic Atom*, a programmable matter (sub-millimeter computers/nanotechnology) that will eventually have the ability to move around, communicate with each other, change color, and electrostatically connect to other catoms to form different shapes

CCTV: (see, **closed-circuit television**)

CDC: (see, **Center for Disease Control**)

Center for Disease Control: a United States Government public health agency

Central Intelligence Agency: an independent executive agency which reports to the Director of National Intelligence, and one of the principal intelligence-gathering agencies of the United States Federal Government

chaos theory: a field of study in mathematics, with applications in several disciplines including meteorology, physics, engineering, economics, and biology, which studies the behavior of dynamical systems that are highly sensitive to initial conditions: an effect which is popularly referred to as 'the butterfly effect'

CIA: (see, **Central Intelligence Agency**)

Claytronic Atom: (see, **catoms**)

Claytronics: an abstract future concept that combines nanoscale robotics and computer science to create individual nanometer-scale computers called *Claytronic Atoms*, abbreviated to, *catoms*, which can interact with each other to form tangible 3-D objects that a user can interact with

clone: an individual grown from a single somatic cell or cell nucleus and genetically identical to it; also, a group of replicas of all or part of a macromolecule, and especially DNA

closed-circuit television: the use of video cameras to transmit a signal to a specific place, on a limited set of monitors

Codex Alimentarius: Latin for *Book of Food*; also, a collection of internationally recognized standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety

Construct, The: the term coined by the author of this book, *Aaron E. McCollum*, for an overall name given to the complexity that is involved and associated with Transhumanism, Posthumanism, The Singularity, etc.

Creationism: the religious belief that life, the Earth, and the universe, are the creation of a supernatural being

cryogenic: of, or relating to, the production of very low temperatures; also, requiring, or involving the use of a sub-zero temperature

cryonics: the practice of freezing the body of a person who has died (often, from a disease) in hopes of restoring life at some future time (when a cure for the disease has been developed)

cryopreservation: a process where cells, whole tissues, or any other substances susceptible to damage caused by chemical reactivity or time are preserved by cooling to sub-zero temperatures

cyber: a prefix meaning computer, computer network, or virtual reality

cybernetic: the science of communication and control theory that is concerned especially with the comparative study of automatic control systems (as the nervous system and brain and mechanical-electrical communication systems)

cyborg: a bionic human

cytoplasm: the organized complex of inorganic and organic substances external to the nuclear membrane of a cell and including the cytosol and membrane-bound organelles (as mitochondria or chloroplasts)

D

DARPA: (see, **Defense Advanced Research Projects Agency**)

Darwinism: broadly defined as a theory of biological evolution: the theory of the origin and perpetuation of new species of animals and plants which includes the idea that offspring of a given organism vary, that natural selection favors the survival of some of these variations over others, that new species have arisen and may continue to arise by these processes, and that widely divergent groups of plants and animals have arisen from the same ancestors

Defense Advanced Research Projects Agency: an agency of the United States Department of Defense responsible for the development of new technologies for use by the military

demi-god: a divine or supernatural being in classical mythology, the term of which has been used in various ways at different times and can refer to a figure who has attained divine status after death, a minor deity, or, a mortal who is the offspring of a God and a human.

deoxyribonucleic acid: a molecule that encodes the genetic instructions used in the development and functioning of all known living organisms and many viruses

de-sexualization: to take away the sexual quality of; to desex

DHS Fusion Center: an information sharing center, many of which were jointly created between 2003 and 2007 under the U.S. Department of Homeland Security and the Office of Justice Programs in the U.S. Department of Justice

DNA: (see, **deoxyribonucleic acid**)

DNA sequence: a succession of letters that indicate the order of nucleotides within a DNA (using GACT) or RNA (GACU) molecule (see also, **deoxyribonucleic acid**)

dreamscape: a dreamlike, often surrealistic scene

E

Earth 2.0: a Transhumanism term for the 'next Earth', or the new earth that becomes transformed in a similar fashion as the Transhumans; also, equal in relation to Human 2.0 (Posthumanism)

EEG: (see, **electroencephalography**)

electroceuticals: classified as bioelectronic medicine that are nano-scale devices that connect to a group of individual nerve fibers and change patterns of electrical signals to restore health to organs and biological functions

electroencephalography: the recording of electrical activity along the scalp; also, the measure of voltage fluctuations resulting from ionic current flows within the neurons of the brain

electrolysis: a method of using a direct electric current (DC) to drive an otherwise non-spontaneous chemical reaction

electromagnetic energy: also known as radiant energy, or electromagnetic radiation, depending on various considerations and sources, and is a form of energy emitted and absorbed by charged particles which exhibit wave-like behavior as they travel through space

electron: a subatomic particle with a negative elementary electric charge

eugenics: a science that deals with the improvement (as by control of human mating) of hereditary qualities of a race or breed

existential risk: an event that would destroy the human species or irreversibly cripple humanity so that it could not reach its full potential

exoskeleton suit: a mobile machine, also known as *powered armor*, *exoframe*, or *exosuit*, consisting primarily of an outer framework (akin to an animal's exoskeleton) worn by a person, and a powered system of motors or hydraulics that delivers at least part of the energy for limb movement

extropian: one who believes in extropism (see also, **extropy**)

extropism: (see, **extropy**)

extropy: an evolving framework of values and standards, also referred to as the philosophy of *extropy*, for continuously improving the human condition of which extropians believe that advances in science and technology will someday let people live indefinitely

F

face/facial recognition software: a computer application for automatically identifying or verifying a person from a digital image, or a video frame from a video source

false flag operation: a covert military or paramilitary operation designed to deceive in such a way that the operation appears as though it is being carried out by other entities, groups, or nations than those who actually planned and executed it: operations carried during peace-time by civilian organizations, as well as covert government agencies, may, by extension, be called false flag operations if they seek to hide the real organization behind an operation

FDA: (see, **Food and Drug Administration**)

FEZ: (see, **free-experimentation zone**)

Food and Drug Administration: an agency of the United States Department of Health and Human Services, one of the United States federal executive departments.

free-experimentation zone: an area on land or at sea that operates as a research and development facility that is excluded from local or international regulatory agencies

Futurist: one who studies and predicts the future especially on the basis of current trends

G

G20: the group of twenty finance ministers and Central Bank governors from 20 major economies - also known as the *Group of Twenty, G-20*, and *G20*

G8: a forum for the governments of eight of the world's eleven largest national economies - also known as the *Group of Eight*

genetic algorithms: a search heuristic, in the computer science field of artificial intelligence, that mimics the process of natural evolution and is routinely used to generate useful solutions to optimization and search problems - also known as *GA*, and sometimes called a *metaheuristic*

genetically modified organism: an organism whose genetic material has been altered using genetic engineering techniques

genetics: a branch of biology that deals with the heredity and variation of organisms; also, the genetic makeup and phenomena of an organism, type, group, or condition

genomes: broadly described as the genetic material of an organism: one haploid set of chromosomes with the genes they contain

genomics: a branch of biotechnology concerned with applying the techniques of genetics and molecular biology to the genetic mapping and DNA sequencing of sets of genes, or the complete genomes of selected organisms, with organizing the results in databases, and with applications of the data (as in medicine or biology)

geoengineering: the application of geosciences, where mechanics, mathematics, chemistry, and geology are used to understand and shape the design of natural and built infrastructure; also, a term for weather modification (chemtrails)

geotechnology: the application of science and technology in order to utilize the Earth's natural resources, and sometimes used in reference to weather modification research and development and equipment used

gerontologist: a specialist in gerontology (see also, **gerontology**)

gerontology: the study of the social, psychological, and biological aspects of aging

GMO: (see, **Genetically Modified Organism**)

Goldilocks Zone: the region around a star within which planetary-mass objects with sufficient atmospheric pressure can support liquid water at their surfaces giving the optimal environment to sustain living organisms.

H

H+: the abbreviation for *Transhumanism*

H+ Transgenderists: the growing movement consisting mostly of transgendered and transsexual people who have embraced the Transhumanism ideologies and philosophies (Transhumanism Declaration)

HAC: (see, **human artificial chromosome**)

hedonism: pursuit of, or devotion to, pleasure: especially to the pleasures of the senses; also, the doctrine that pleasure or happiness is the sole or chief good in life; also, an ethical doctrine holding that only what is pleasant or has pleasant consequences is intrinsically good

hedonistic: (see, **hedonism**)

hologram: a three-dimensional image that is made using lasers, interference, diffraction, light intensity recording and suitable illumination of the recording. The image changes as the position and orientation of the viewing system changes in exactly the same way as if the object were still present, thus making the image appear three-dimensional

holographic: (see, **hologram**)

homeopathic: (see, **homeopathy**)

homeopathy: a system for treating disease based on the administration of minute doses of a drug that in massive amounts produces symptoms in healthy individuals similar to those of the disease itself

HRI: (see, **human-robotic interaction**)

Human 1.0: present day humans who have evolved naturally

Human 1.5: a transitional phase of Transhumanism

Human 2.0: another term for the posthuman (Posthumanism); also, considered a more advanced transitional phase before further synthesized evolution takes place

Human 3.0: the final destination for some posthumans, but in accordance with the Human Tree of Future Human Self (or, Transhuman Family Tree) is yet another transitional phase of the synthetic evolution with some metaphysical influences

human artificial chromosome: a micro-chromosome that can act as a new chromosome in a population of human cells.

human-robotic interaction: a multidisciplinary study of current and future interaction and relationships between robots and humans

I - J - K

IARPA: (see, **Intelligence Advanced Research Projects Activity**)

immunohistochemical: of, or relating to, the application of antibody-antigen interactions to histochemical techniques, as in the use of immunofluorescence (see also, **immunohistochemistry**)

immunohistochemistry: microscopic localization of specific antigens in tissues by staining with antibodies labeled with fluorescent or pigmented material

informatics: in its most general sense, pertains to the science of information; as an academic field, involves the practice of information processing, and the engineering of information systems by studying the structure, algorithms, behavior, and interactions of natural and artificial systems which store, process, access, and communicate information - and considers the interaction

between humans and information systems alongside the construction of computer interfaces

Intelligence Advanced Research Projects Activity: an office of the Office of the Director of National Intelligence (ODNI) created in 2006 to conduct cross-community research, target new opportunities and innovations, and generate revolutionary capabilities while drawing upon the technical and operational expertise that resides within the intelligence agencies

intelligence community: a general term relating to government intelligence agencies or offices

intelligent design: a form of creationism, defined by the Discovery Institute as pertaining to certain features of the universe and of living things that are best explained by an intelligent cause, rather than an undirected process, such as natural selection

L

law of accelerating, the: a perceived increase in the rate of technological (and sometimes social and cultural) progress throughout history, which may suggest faster and more profound change in the future. While many have suggested accelerating change, the popularity of this theory in modern times is closely associated with various advocates of the technological singularity, such as *Vernor Vinge* and *Ray Kurzweil*.

lobotomy: a neurosurgical procedure, a form of psychosurgery also known as a *leukotomy*, or, *leucotomy* consisting of cutting or scraping away most of the connections to and from the prefrontal cortex: the anterior part of the frontal lobes of the brain

long range acoustic device: an acoustic hailing device and sonic weapon developed by LRAD Corporation to send messages, warnings, and harmful pain inducing tones over longer distances than normal loudspeakers

LRAD: (see, **long range acoustic device**)

M

macromolecule: a very large molecule commonly created by polymerization of smaller subunits. In biochemistry, the term is applied to the three conventional biopolymers (nucleic acids, proteins and carbohydrates),as well as non-polymeric molecules with large molecular mass such as lipids and macrocycles. The individual constituent molecules of macromolecules are called *monomers* (*mono=single, meros=part*).

matrix: something within, or from, of which something else originates, develops, or takes form

melamine: a white crystalline organic base $C_3H_6N_6$ with a high melting point that is used chiefly in organic synthesis and the manufacture of resins

memetics: a theory of mental content based on an analogy with Darwinian evolution, originating from the popularization of Richard Dawkins' 1976 book, *The Selfish Gene.* It purports to be an approach to evolutionary models of cultural information transfer.

metaphysics: a division of philosophy that is concerned with the fundamental nature of reality and being, which includes ontology, cosmology, and often epistemology; also, abstract philosophical studies: a study of what is outside objective experience

microbiology: a branch of biology dealing with microscopic forms of life

microtechnology: a technology with features near one micrometer (one millionth of a meter)

Military-Industrial Complex: a concept commonly used to refer to policy and monetary relationships between legislators, national armed forces, and the military industrial base that supports them. These relationships include political contributions, political approval for military spending, lobbying to support bureaucracies, and oversight of the industry. It is a type of iron triangle. The term is most often used in reference to the system behind the military of the United States, where it gained popularity after its use in the farewell address of *President Dwight D. Eisenhower* on January 17, 1961, although the term is applicable to any country with a similarly developed infrastructure.

moistmedia: a convergence of synthetic technology with a biological system; also, as according to its reference in this book, and the subject of Transhumanism, the definition, as defined by *Professor Roy Ascott*, is stated as: *"convergence of the information technology (dry) of silicon with biological systems (moist) as the substratum of a new art. Morphogenetic fields of thought, flux and transformation, energy and light are the manifestations that inform a new sensibility for creating realities and exploring the world. [...]"*

monosodium glutamate: the sodium salt of glutamic acid, one of the most abundant naturally occurring non-essential amino acids - also known as *sodium glutamate*

Morgellons: A communicable (nanotechnology triggered?) invasion of human tissues in the form of self-assembling, self-replicating visible tubes, colored fibers, wires, arrays with what seem to be sensors or 'antennae', and other visible configurations - some carrying what may be genetically-altered and spliced DNA/RNA

MSG: (see, **monosodium glutamate**)

multiculturalism: a community of multiple cultures; also, considered by some as an agenda driven idea in order to reduce or eliminate certain cultures

by influencing a particular nation's government through the influence of special interest groups

N

nanotechnology: the science of manipulating materials on an atomic or molecular scale, especially to build microscopic devices (as robots)

NASA: (see, **National Aeronautics and Space Administration**)

National Aeronautics and Space Administration: the agency of the United States Government that is responsible for the nation's civilian space program and for aeronautics and aerospace research

neo-humanity: a new humanity which could refer to Posthumanism (Human 2.0, Human 3.0)

neurogaming: a new generation of video game technology that currently uses non-invasive brain-computer interfacing, of which some neurogaming software uses a player's brain waves, heart rate, expressions, pupil dilation, and even emotions to complete tasks or affect the mood of the game

neuromodulation: the physiological process by which a given neuron uses several different neurotransmitters to regulate diverse populations of central nervous system neurons

neuro-network: a collective of computerized minds or artificial brains working together in a collective and cooperative manner

neuroprosthetics: a discipline related to neuroscience and biomedical engineering concerned with developing neural prostheses: a series of devices that can substitute a motor, sensory, or cognitive modality that might have been damaged as the result of injury or disease

neuroscience: the scientific study of the nervous system.

New Age Movement: a Western spiritual movement that developed in the second half of the 20th century, with central precepts that have been described as drawing on both Eastern and Western spiritual and metaphysical traditions, and infusing them with influences from self-help and motivational psychology, holistic health, parapsychology, consciousness research and quantum physics

noosphere: the sphere of human consciousness and mental activity, especially in regard to its influence on the biosphere and in relation to evolution.

O

OBE: also referred to as *OOBE* (see, **out-of-body experience**)

Occupy Movement: an international protest movement against social and economic inequality, of which its primary goal is to make the economic and political relations in all societies less vertically hierarchical and more flatly distributed.

ODNI: (see, **Office of the Director of National Intelligence**)

Office of the Director of National Intelligence: an independent agency to assist the Director of National Intelligence (DNI), of which its goal is to effectively integrate foreign, military and domestic intelligence in defense of the homeland and of United States interests abroad

Oracle: a person (such as a priestess of ancient Greece) through whom a deity is believed to speak; also, a person giving wise or authoritative decisions or opinions

organic: of, relating to, or derived from living organisms; also, of, relating to, yielding, or involving the use of food produced with the use of feed or fertilizer of plant or animal origin without employment of chemically formulated fertilizers, growth stimulants, antibiotics, or pesticides

out-of-body experience (OBE): an experience that typically involves a sensation of floating outside one's body and, in some cases, perceiving one's physical body from a place outside of one's body

P

pandemic: occurring over a wide geographic area and affecting an exceptionally high proportion of the population

Pandora's Box: an artifact in Greek mythology, taken from the myth of Pandora's creation in Hesiod's *Works and Days*. The 'box' was actually a large jar given to Pandora which contained all the evils of the world. Today, the phrase (or variations thereof) 'to open Pandora's box' means to perform an action that may seem small or innocuous, but that turns out to have severe and far-reaching consequences.

planetary ecosynthesis: a more scientific term used to describe the process behind terraforming a planet by deliberately modifying a planet, moon, or planetoid's atmosphere, temperature, surface topography or ecology, to be similar to the biosphere of Earth to make it habitable by humans

police state: a state in which the government exercises rigid and repressive controls over the social, economic, and political life of the population, and which typically exhibits elements of totalitarianism and social control, with usually little or no distinction between the law and the exercise of political power by the executive

> *Author's Note:* The inhabitants of a police state experience restrictions on their mobility, and on their freedom to express or

communicate political or other views, which are subject to police monitoring or enforcement. Political control may be exerted by means of a secret police force which operates outside the boundaries normally imposed by a constitutional state.

polydactyly: a medical term used to describe extra fingers on the hands, or toes on the feet

polymath: one whose expertise spans a significant number of different subject areas

portmanteau: a word formed by merging the sounds and meanings of two different words into one new word (*example:* chuckle and snort, form 'chortle'.)

Postgenderism: a term referring to the state resulting from the process of a posthuman version of a transgendered being that has utilized Transhumanism technology in order to augment their physical appearance, and in such a way to create an a-sexual look and assume a more of non-committal sexual lifestyle

posthuman: the word denoting, and used in replacement of, 'human' when referring to a person of the Posthumanism era; also, one who has been transformed by technology and is no longer 100% organically human (see also, **Posthumanism**)

Posthumanism: Posthumanism, also known as Human 2.0, is the concept and philosophy of the creation of a new type of humanity (human species) through the technological process known as Transhumanism in a method of synthetic evolution using technology in fields such as biotechnology and brain-computer interfacing. This process creates a new paradigm where human and machine are integrated in bio-cybernetic unification under one superintelligent control. Supporters of this ideology believe it is the only reasonable option to preserve and evolve the Human race.

posthumanist: one in support of humanity heading into a Posthumanism era (see also, **Posthumanism**)

PRIMO Posthumanism: a conceptual idea by *Dr. Natasha Vita-More* on one form of how a posthuman (Human 2.0) could look and the choices they would have for bio-cybernetic augmentations of the human body, both internally and externally.

PSYOP: Commonly used abbreviated form of *psychological operation* (pronounced: *sigh-op*), where various techniques are used, by any set of groups, and aimed to influence a target audience's value systems, belief systems, emotions, motives, reasoning, or behavior. It is also used to induce confessions or reinforce attitudes and behaviors favorable to the originator's objectives, and are sometimes combined with black operations or false flag tactics. Target audiences can be governments, organizations, groups, and individuals.

Q

quantum: the smallest quantity of some physical property, such as energy, that a system can possess according to the quantum theory; also, a term used to describe or measure something, such as in the example; 'a quantum improvement'

quantum leap: an abrupt change, sudden increase, or dramatic advance

R

R & D: commonly used abbreviated term for *Research & Development*; also, the name sometimes given to departments or groups, or the process itself, devoted to the discovery and creation of new knowledge about scientific and technological topics for the purpose of uncovering and enabling development of valuable new products, processes, and services

reanimate: to restore life of an organism that in most cases has been placed in a cryogenic state.

reincarnation: the religious or philosophical concept that the soul, or spirit, after biological death, begins a new life in a new body that may be human, animal, or spiritual depending on the moral quality of the previous life's actions

RF: the abbreviation for *radio frequency*; a rate of oscillation in the range of about 3 kHz to 300 GHz which corresponds to the frequency of radio waves, and the alternating currents which carry radio signals (see also, **RF waves**)

RF waves: an electromagnetic wave within the range of radio frequencies

RFID: the abbreviation for *radio-frequency identification*; the wireless non-contact use of radio-frequency electromagnetic fields to transfer data for the purposes of automatically identifying and tracking tags attached to objects. The tags contain electronically stored information. Some tags are powered by and read at short ranges (a few meters) via magnetic fields (electromagnetic induction).

RNA: (see, **ribonucleic acid**)

ribonucleic acid: a ubiquitous family of large biological molecules that perform multiple vital roles in the coding, decoding, regulation, and expression of genes. Together with DNA, ribonucleic acid (RNA) comprises the nucleic acids, which, along with proteins, constitute the three major macromolecules essential for all known forms of life.

robotics: technology dealing with the design, construction, and operation of robots in automation

rubicon: a bounding or limiting line, *especially* one that when crossed commits a person irrevocably

S

S & T: abbreviated term for *Science & Technology*

SERCO: the commonly used abbreviated term for *Serco Group plc* (pronounced: *sir-co*), a British government services company that is in the global business of public and private transport and traffic control, aviation, military and nuclear weapons contracts, detention centers, and prisons and schools.

silver isocyanate: a chemical compound, and the cyanate salt of silver.

Singularity, The: the hypothetical future creation of superintelligent machines. Should The Singularity occur, technology will advance beyond our ability to foresee or control its outcomes, and the world will be transformed beyond recognition by the application of superintelligence residing over humans and/or human problems, including poverty, disease and mortality.

Smart Growth: official definition: an urban planning and transportation theory that concentrates growth in compact walkable urban centers to avoid sprawl. It also advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.

> *Authors Note:* What is never mentioned is how this term is directly related to the agenda drafted in the United Nation's Agenda 21 plan which would eliminate all rural communities and pack the majority of the population into mega-cities within mega-regions of a designated country or geographical region.

Smart technology: technologies mostly involving the computer and robotics industry that are being branded as 'Smart' products which allegedly make life easier; such technologies include Smart phones, Smart vehicles, Smart appliances (refrigerators, washing machines, toilets, etc.) and electric company Smart Meters

social engineering: a term that can be intelligently debated to be nothing more than mass mind control; also, officially defined as a discipline in social science that refers to efforts to influence popular attitudes and social behaviors on a large scale, whether by governments or private groups

SPLC: the abbreviation of *Southern Poverty Law Center*, officially an American nonprofit civil rights organization that classifies and lists as hate groups any organizations that in its opinion denigrate or assault entire groups of people: typically for attributes that are beyond their control. This 'law' group is notorious for defaming and publishing false and negative propaganda

against such patriotic organizations and movements like the Constitutional Militias, and Gun Owners of America.

speciesism: discrimination of one species (usually human) over another; particularly, the belief that all other species are inferior to the human species, and can therefore be exploited or mistreated

SSRI: the abbreviation of *selective serotonin reuptake inhibitor*, commonly used in abbreviated form to describe pharmaceuticals which are a class of compounds typically used as antidepressants in the treatment of depression, anxiety disorders, and some personality disorders

sub-human: less than human: failing to attain the level (as of morality or intelligence) associated with normal human beings

supercomputer: a computer at the frontline of contemporary processing capacity, particularly speed of calculation

superintelligence: a technologically-created cognitive capacity far beyond that which is possible for humans; also, a hypothetical entity which possesses intelligence surpassing that of any existing human being; and may also refer to the specific form or degree of intelligence possessed by such an entity. The possibility of superhuman intelligence is frequently discussed in the context of artificial intelligence.

sustainable development: a mode of human development in which resource use aims to meet human needs while ensuring the sustainability of natural systems and the environment, so that these needs can be met not only in the present, but also for generations to come

synthetic biology: a science that uses parts of artificially designed functional modular nucleic acid elements predefined in silico, synthesized in the laboratory, and provided by use of replicating systems. These are intended to be functional on different interaction levels between DNAs, proteins, RNAs and poly-saccharides, in order to create artificial biological systems of higher order function. Application driven approaches clearly are tending for building up complex systems extending all capabilities for solving today's and future problems of medical care, environment, and nutrition.

synthetic evolution: a term used to describe the Transhumansim desire to accelerate human evolution exponentially by means of technologies such as nanotechnology, biotechnology and cybernetics

systems biology: an emerging approach applied to biomedical and biological scientific research which is a biology-based inter-disciplinary field of study that focuses on complex interactions within biological systems, using a more holistic perspective (holism instead of the more traditional reductionism) approach to biological and biomedical research

T

Taoism: a philosophical and religious tradition that emphasizes living in harmony with the *Tao*, which means 'way', 'path', or 'principle', and can also be found in Chinese philosophies and religions other than Taoism

Taoist: one who practices Taoism (also see, **Taoism**)

techno-esoteric: a more futuristic and Transhumanist spin on esoterism, of which is defined as ideas preserved or understood by a small group of those specially initiated, or of rare or unusual interest

technoetic: a neologism, or, new word, that means the convergence of craftsmanship (technology) and the ideas of consciousness, spirituality, and cosmology, and how it affects the physical world

Technological Singularity: (see, **Singularity, The**)

telecommunication: communication at a distance by technological means, particularly through electrical signals or electromagnetic waves

telematic: any integrated use of telecommunications and informatics

telepresence: a set of technologies which allow a person to feel as if they were present, or to give the appearance of being present, or to have an effect, via telerobotics, at a place other than their true location

TEPCO: The commonly used abbreviated term for Tokyo Electric Power Company, Incorporated (pronounced: *tep-co*): a Japanese electric utility company

terraforming: the hypothetical process of deliberately modifying a planet, moon, or other body's atmosphere, temperature, surface topography or ecology to be similar to the biosphere of Earth to make it habitable by humans

Transfigurism: defined as religious Transhumanism, exemplified by syncretization of Mormonism and Transhumanism. The term, *transfigurism*, denotes advocacy for change in form, and alludes to sacred stories from many religious traditions, such as the Universal Form of Krishna in Hinduism, the Radiant Face of Moses in Judaism, the Wakening of Gautama Buddha in Buddhism, the Transfiguration of Jesus Christ in Christianity, and the Translation of the Three Nephites in Mormonism. Transfigurism also alludes to prophecies, such as the Rapture in Christianity and the Day of Transfiguration in Mormonism.

Transgenderism: a social movement seeking transgender rights and affirming transgender pride

Transhumanism: an international, intellectual, and cultural movement that affirms the possibility and desirability of fundamentally transforming the human condition by developing and making widely available technologies to eliminate aging and to greatly enhance human intellectual, physical, and psychological capacities

transhuman: the word denoting, and used in replacement of, 'human' when referring to a person of the Transhumanism era; also, one who has been transformed by technology and is no longer 100% organically human (see also, **Transhumanism**)

Transhumanist: one in support of humanity heading into a Transhumanism era (see also, **Transhumanism**)

transmutation: the act, or an instance, of transmuting, or, transforming; also, the state of being transmuted or transformed

transsexual: one who has undergone a sex change operation and identifies with being of the opposite sex

transvestite: one who dresses and acts, and identifies him or herself in a style or manner traditionally associated with the opposite sex

Truth Movement: a growing movement of people who do not accept establishment information when it is not backed up by scientific facts and logical reasoning

U

UAV: (see, **Unmanned Aerial Vehicle**)

UGV: (see, **Unmanned Ground Vehicle**)

UNESCO: the commonly used abbreviated term for the *United Nations Educational, Scientific and Cultural Organization* (pronounced: *you-ness-co*), a specialized agency of the United Nations (UN). Its purpose is to contribute to peace and security by promoting international collaboration through education, science, and culture in order to further universal respect for justice, the rule of law, and human rights, along with fundamental freedom proclaimed in the UN Charter.

United States Department of Agriculture: also known as the *Agriculture Department*, the U.S. federal executive department responsible for developing and executing U.S. Federal Government policy on farming, agriculture, forestry, and food.

Unmanned Aerial Vehicle: an aircraft *without* a human pilot on board and of which is controlled/flies either autonomously by computers in the vehicle, or under the remote control of a pilot on the ground or in another vehicle.

Unmanned Ground Vehicle: a vehicle that operates while in contact with the ground and *without* an onboard human presence. The vehicle will have a set of sensors to observe the environment, and will either autonomously make decisions about its behavior or pass the information to a human operator at a different location who will control the vehicle through teleoperation

utilitarianism: a theory in normative ethics holding that the proper course of action is the one that maximizes utility, usually defined as maximizing happiness and reducing suffering

utopia: a community or society possessing highly desirable or perfect qualities

UUV: (see, **Unmanned Underwater Vehicle**)

Unmanned Underwater Vehicle: any vehicle that is able to operate underwater *without* a human occupant. These types of vehicles may be divided into two categories: Remotely Operated Underwater vehicles (ROVs), which are controlled by a remote human operator, and, Autonomous Underwater Vehicles (AUVs), which operate independently of direct human input. The latter category would constitute a kind of robot.

V

Vatfood: a concept from *David Pearce* which is described as being a cheap, palatable, genetically-engineered food from factory-farmed non-human animals using biotechnology

virtual reality: an artificial environment which is experienced through sensory stimuli (as sights and sounds) provided by a computer and in which one's actions partially determine what happens in the environment

VR: (see, **virtual reality**)

W - X - Y

Wi-Fi: a popular technology that allows an electronic device to exchange data or connect to the internet wirelessly using radio waves

Wizard of OZ Technique/Experiment: a research experiment in which subjects interact with a computer system that subjects believe to be autonomous, but which is actually being operated, or partially operated, by an unseen human being

WXMod: the abbreviation for *Weather Modification*

Z

Zeitgeist: the defining spirit or mood of a particular period of history as shown by the ideas and beliefs of the time